FEEDSTUFFS®

★ A WEEKLY NEWSPAPER ★

FOR THE FEED MANUFACTURER, JOBBER, BROKER and DEALER

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Outlook for Price Support Bill Analyzed

By JOHN CIPPERLY
Feedstuffs Washington Correspondent

WASHINGTON—The Senate's defeat of high rigid price supports on certain commodities late this week was regarded as a first round victory for the administration and its stand in favor of flexible supports.

The size of the majority vote March 8—54 to 41—casts a new light on the firm administration stand against high price supports, and many observers felt that the administration proposals now cannot be stopped.

At the same time, however, advocates of the flexible support program probably could be advised to restrain themselves somewhat after the initial victory.

The opposition undoubtedly was left groggy after the first voting, but before the new farm bill can be enacted into law, it must go through a conference committee session with a House group. The House, at the last session, passed a measure which would repeal the flexible support provisions of the farm act of 1949.

Thus, the first round victory for the flexible support position was actually only the first step in a long road ahead. A number of amendments were being offered and voted upon.

Conference Committee

Then, a Senate bill without rigid supports would have to get through a probably antagonistic conference committee which, it was expected, would be packed with a majority from both chambers favoring high rigid supports.

That has been sensed for some time as an obstacle to the flexible support law. However, the size of the initial Senate vote against high supports would make it difficult for the Senate conference group to concur with any House stand, no matter how firm for repeal of flexible supports.

Also, since the President has announced that he will stand for another term, the attitude of a number of House Republican congressmen may change. They may be persuaded to go along with the White House if they hope to get administration backing in the congressional elections.

The surprising size of the first Senate vote against the return of high rigid supports must be credited in large measure to the floor leader-

(Continued on page 8)

AFMA Issues Statement Outlining Industry Views On Control of Feeds

CHICAGO — The American Feed Manufacturers Assn. this week issued a policy statement dealing with feed control and the industry's relationship with state and federal agencies.

The statement points out, among other things, that "advances in research are of such diversity and occur with such frequency that it is impractical to regulate the ingredients, the level of nutrients and feeding programs."

The AFMA said: "Free competition among manufacturers and the freedom of product choice among farmers and feeders tend to promote the production of feeds designed to yield the most economical and profitable livestock and poultry production.

"The feed industry makes use of all sources of information in improving its product, and this improvement is the responsibility of the feed industry. These objectives can best be accomplished by freedom of the manufacturer to name and recommend use of its products and the privilege of the manufacturer to sell any material that satisfies the object for which the feed is intended so long as the product is within the guarantees made for it.

"The primary object of feed control is to see that all products conform to the guarantees made by the manufacturer."

In issuing the statement, W. E. Glennon, AFMA president said: "As feed manufacturing becomes more complex, the industry's relationship with state and federal agencies has necessarily become more involved. Due to these factors, the board of directors of the AFMA has instructed me to issue the policy statement and to use every means at my disposal toward carrying out its objectives."

Mr. Glennon's announcement was made following the recent mid-winter meeting of the AFMA board of directors.

Mr. Glennon noted that two active

(Continued on page 81)

Manufacturers Take Action On Promotion, Other Activities

CHICAGO—The board of directors of the American Feed Manufacturers Assn. recently took action on several important matters relating to the feed industry. Included were:

- Approval of a grant of $2,500 to help promote foreign markets for U.S. poultry products.
- A three-year extension of the AFMA program to honor outstanding research workers; a grant of $3,000 was made for the coming year's awards.
- Authorization of the expenditure of $5,000 to start preliminary work on a second industry public relations motion picture.
- Endorsement of poultry groups' United Feather Fund plan for the joint solicitation of support from feed and other allied industries for poultry product promotion.

These actions were taken during the recent two-day mid-winter meeting of the AFMA board and were announced this week by W. T. Diamond, AFMA secretary-treasurer, who presented a resume of recent association activities and indicated some of the plans for the future.

The board, which met prior to the recent increase in freight rates, also went on record as being opposed to the planned increase, and it approved four new AFMA members.

Poultry Export Promotion

In connection with plans for support of poultry export promotion, Mr. Diamond noted that five national poultry associations and the AFMA have been asked to subscribe $15,000 under a combined organization to be known as the International Trade Development Committee of the Institute of American Poultry Industries. These funds will be matched with $300,000 of the U.S. Department of Agriculture for promotional efforts to expand foreign markets of U.S. poultry products. The actual work will be done by traders with government cooperation. Mr. Diamond stated that AFMA's share of $2,500 has been appropriated by his board subject to similar action by the other participating organizations.

The three-year extension of the

(Continued on page 77)

Much Export Business Activity Reported by USDA

WASHINGTON—Considerable export business for U.S. agricultural commodities was reported this week by the U.S. Department of Agriculture. The business included some Public Law 480 activity and sales of cheese and butter to private concerns for export.

An agreement with Spain to finance the sale to that country of $64.8 million worth of U.S. agricultural commodities was announced by USDA. This is the first PL-480 agreement to include pork products other than lard. To be purchased besides pork are potatoes, cotton, edible oils, tobacco, feed grains, linseed oil, tallow or grease and cotton linters.

Another PL-480 transaction reported involves issuance of a purchase authorization for Israel to finance from U.S. suppliers up to $10 million worth of beef. This is expected to cover the purchase of 40 million pounds of beef—fresh, frozen and/or canned.

Rail Freight Costs on Feed, Grain Items Advance 5-6%

WASHINGTON — Railroad freight costs for most grain and feed products advanced 5% this week in accordance with an Interstate Commerce Commission ruling effective March 7. A general increase of 6% was granted on most products moving over the rails, but grain and feed commodities were important exceptions in the order.

A summary of the increase as it affects the various products and commodities moving in the grain and feed industry is as follows:

Grain, grain products and articles taking the grain and grain products rates up 5%.

Soybeans taking the grain rate up 5%. Soybeans on a special rate up 6%.

Soybean oil meal moving on the grain products rate (in the East primarily) up 5%, otherwise up 6%.

Alfalfa and alfalfa products moving on special alfalfa rates up 6%. Alfalfa and alfalfa products moving on grain rates up 5%.

Molasses, including blackstrap and corn sugar molasses, up 6%. In the Midwest, where a recent reduction in blackstrap molasses was allowed, the advance of 6% is taken from the point of the special reduction.

Cottonseed oil meal up 6%.

Linseed oil meal moving on a grain rate or a percentage of a grain rate up 5%, otherwise the advance is 6%.

Packinghouse by-products such as meat scraps and tankage up 6%. The 5% increase in packinghouse products applies to human edible items.

Phosphate rock, not further processed than ground, up 6% not to exceed a maximum of 30¢ a net ton.

Salt up 6% subject to a maximum increase of 30¢ a net ton.

Originally the railroads had asked for a general 7% increase across the board to become effective without a hearing but subject to review by the ICC. Instead the 6% advance was granted subject to ICC review and a pledge from the railroads that refunds would be granted should the new rates be canceled. The ICC agreed that the increase generally was justified because of higher rail operation costs.

FEEDSTUFFS FEATURES

On page 14 are tables showing numbers of livestock and poultry on farms as of Jan. 1. These figures can serve as one of the market guides for the feed industry. A story on the livestock and poultry inventory appeared in the Feb. 18 issue of Feedstuffs.

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Feed Market Opportunity

THE news reported in Feedstuffs last week of the start of a $1.2 million program to export U.S. poultry to western Germany could well turn out to be an event of prime significance in the feed industry's future. In this initial stage the opening up of an export market for U.S. broilers and turkeys relies on the assistance given by the government through provisions of Public Law 480. Under this law exporters can be paid in hard dollars from government funds while importers may pay the U.S. government in soft currencies. It is a measure specifically intended to promote trade otherwise hampered by the lack of sufficient dollars in foreign countries. Aside from this necessary assistance to currency mobility, the trades under the program are on a private business basis.

From the viewpoint that interests of U.S. industry are better served in such aid programs when exports of processed products—such as ready-for-the-table poultry—are stimulated, the program is important. It is not the first of that kind, of course, as a number of other food products have been showing up on the lists of P.L. 480 authorizations dominated by grains and other raw agricultural commodities. However, the real importance of the program to the feed industry lies in its "foot-in-the-door" aspects. It is not too improbable to think that a substantial foreign demand for U.S. poultry products could be built up as consumers overseas are treated to the same high quality products at reasonable prices that have assured them acceptance by American consumers. Men with a sharp eye toward market expansion have surveyed prospects in Europe and are convinced of a real sales potential there.

"The work ahead won't be easy," in the words of Gwynn Garnett of the Foreign Agricultural Service, U.S. Department of Agriculture. "We must sell consumers in foreign countries on the desirability of upgrading diets by eating more poultry and eggs," he points out. "We must sell the trade people of these countries on the idea that greater sales of eggs and poultry would be profitable for them. We must persuade the farm groups in various countries that our desire is to increase the total demand for poultry and eggs in their countries, and in doing this their farms can produce and sell more than ever before—even though substantial quantities are imported from the U.S. . . . On the surface it appears to be quite easy to sell large quantities of poultry and eggs overseas. But while retail prices abroad might be high compared to ours, the same may not be true of wholesale prices. Most of the world buys food in open markets or small stores where there is no refrigeration and where high retail markups are the rule. So we also have the job of showing foreigners our modern retailing and merchandising practices. And somehow we must learn to cope with the lack of freezer facilities at all distribution levels."

Mr. Garnett's remarks, it may be noted, include the possibility of egg exports as well as poultry meat. Exports of the latter only are contemplated in the program for western Germany.

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WHATEVER success the program achieves is definitely worth watching, for bigger poultry product exports ultimately could be translated into important poultry feed tonnage. This conclusion was positively affirmed this week by the announcement of the American Feed Manufacturers Assn. of its participation in a joint program with five poultry industry associations to help promote international trade in poultry products. The AFMA board of directors agreed to contribute its share of funds for establishment of the International Trade Development Committee of the Institute of American Poultry Industries. (See story on page 1.) The U.S. Department of Agriculture will contribute $300,000 in the effort to expand foreign markets for poultry, and actual promotional work will be done by the trade with government cooperation.

Certainly, the feed industry has a sound claim to share in whatever can be developed in this effort to increase exports. Its contribution toward economical production of turkeys and broilers, through constant improvement of the efficiency of its products, is widely recognized. And economy of production, which promises to put U.S. poultry products on European tables, is in the final analysis the biggest factor in making such trade possible.

A FEEDSTUFFS FORMULA FEEDS: HOW'S BUSINESS? FEATURE

Expansion of spring feed business was at a rather halting pace this week, with some areas indicating no improvement from the previous week and others experiencing steadily increased sales. Throughout the trade, however, there was a tendency to hold back on buying because of generally easier ingredient prices. An active business in starter feeds is already under way, however, and it is not considered likely that volume in these lines will fall below earlier expectations. The index of wholesale feedstuffs prices declined 3 points to 183.1, and the feed grain index advanced 2.1 points to 187.2 in the week ending March 7. (Details on pages 78-80.)

Northwest

Reports of feed sales activity varied in the Northwest, with some manufacturers noting a definite further upswing in business and others reporting little change from the previous week's level.

The spotty character of business has been characteristic of trade for the past several months, but up to recently indications were that spring business was building up steadily to a seasonal peak. The leveling off reported by some firms this week therefore could be regarded as a temporary situation.

Some manufacturers said turkey feed business has accelerated quite rapidly, although this was not reported by all. Chick starter trade is gaining rather consistently, and pig starters also are reaching seasonal stride in many instances.

Laying feeds are still about holding their own, with volume chiefly in the concentrates. Dairy feed business is fair to good.

It is not felt that dealers are stocking up to any great extent, with tighter money policies as well as easy ingredient prices discouraging buying ahead. More firms reported this week that February volume had exceeded sales in the same month a year ago.

Operations were on a one- or two-shift basis, with the latter an exception. Saturday work was scheduled by one Minneapolis plant, also.

Southwest

A breath of spring which moved temperatures up to a record level in many sections of the Southwest helped to stimulate feed sales this week. Generally, mills reported operations at a five-day capacity with little or no overtime necessary. Prices were steady to slightly easier, the declines coming on higher protein items brought about by lower costs of vegetable proteins. With corn and sorghums still fairly strong, carbohydrate feeds were about steady in price.

Improved demand for chick starting and growing feeds was reported by most manufacturers. An upturn in demand for pig feeds also was noted. Hog concentrates were moving in rather disappointing volume, while the general line of poultry feeds was in fairly good demand. Broiler feed interest was about steady. Little improvement in dairy feed demand was noted, while most new cattle feed sales have been in fatteners.

Dock business was somewhat improved this week, enough to keep floor stocks moving at a normal spring pace. Whether the pick-up in demand will be maintained for a time remains to be seen. So far this year most upswings in demand have been short-lived.

Pacific Northwest

The formula feed trade as a whole was quiet again this week, with the main topic of conversation being the current activity in grains and grain mixtures as provided for in the emergency feed order which is effective throughout most of western Washington. In effect it lowers the price of grains to the consumer by $20 ton for the next 60 days.

Nearly all of the country mills and some of the terminal mills are participating in the program, which is effective primarily for dairymen and which is not being supported so well by chicken and turkey raisers: The latter, of course, know that they must stick to a balanced ration for results, and thus they are not in position to use grains heavily like cattlemen and dairymen. There is widespread speculation in the trade as to how the grain feeding program will affect millfeed, and it is certain that protein usage will be cut down for the next few weeks, and possibly months, as a result of the increased usage of grains in connection with the emergency program.

The demand for hay continues very heavy, and it probably will continue this way for another 30 to 60 days. While weather conditions have moderated from the extreme cold of January and February, pastures are soggy and completely out of condition until such time as they can get a few weeks of warm dry weather behind them.

Millfeed markets are very quiet, and there is little or nothing of note in connection with them. Proteins also are very quiet, with soybean meal acting as a depressive influence on the rest of the list. Fish meal also has been under heavy selling pressure, and this, too, has helped to lower the general level of protein prices.

Formula feed prices were down $1 @2 ton during the week, and further declines were in the offing, according to feed manufacturers. Spring turkey and chicken business has not as yet begun the seasonal upswing and may not for several weeks, depending on weather conditions.

Ohio Valley

Formula feed sales moved along at a steady and fairly satisfactory pace this week in the Ohio Valley, with broiler feeds in strongest demand and hog feeds and egg mashes holding up well. Otherwise, there appeared to be but a minimum of activity.

Record temperatures of 75 degrees were recorded early this week in this area, resulting in a profusion of early spring flowers and bursting buds on soft maple trees. While somewhat cooler temperatures were predicted, it appears that spring is well on its way, with a resultant increase in out-of-door activities by valley farmers. Manufacturers are hoping the favorable weather also will result in a seasonal increase in feed sales.

Prices in this area remained steady to off slightly, while mill operations continued mostly on a one-shift basis, although second shifts were at work in some plants.

Mountain States

Cattle feed sales are running steady in volume, and the price trend is weaker. Replacements of feeder cattle in dry lots are light. It is estimated that 85% of the cattle in feed lots are receiving stilbestrol feeds. Feeders are happy about the gains

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270 Scientists Hear Nutrition Research Reports at Annual Distillers Feed Conference

By DON E. ROGERS
Feedstuffs Editorial Staff

CINCINNATI—A continued gradual increase in the production of distillers dried feeds, with 1956 output expected to approach 300,000 tons, was noted at the 11th annual conference of the Distillers Feed Research Council March 7 at the Sheraton Gibson Hotel.

It appears that the industry "is reaching a stage of normal activity," said the retiring DFRC president, Dr. S. L. Adams, director of research, Joseph E. Seagram & Sons, Inc., Louisville.

The prospective 1956 production figure, which would compare with the 13-year low of 185,700 tons in 1953, was reported by Dr. Adams in a talk dealing in part with the availability of distillers feeds in the coming year. The high production year was 1951, when 633,200 tons were produced, stimulated by national needs for war alcohol during the Korean conflict.

Dr. Adams' remarks on production and also on the DFRC research program were part of his talk welcoming some 270 industry and university scientists to the conference. The attendance total this year was a record high for this annual meeting despite tornadic weather conditions that grounded many airplanes and rendered driving conditions hazardous.

Research Reports

The delegates heard a talk on industry problems and 11 papers on new developments and research findings in animal nutrition.

Among the highlights of the program were reports on developments during the past year in research on unidentified growth factors. The scientists were brought up to date on this subject after the reports at the conference a year ago on studies showing that the ash of distillers dried solubles and other unidentified factor sources promoted growth.

New developments in baby pig and other aspects of swine nutrition and in ruminant nutrition and calf feeding studies were outlined, and several reports were presented which dealt with new research findings on the use of distillers feeds in rations for broilers, cattle and calves.

Describing the DFRC research program, Dr. Adams said that during the past year, the council has further expanded its program to develop uses for the known and unknown growth factors contained in distillers dried grains and dried solubles. At present, the council is sponsoring 42 livestock and poultry nutrition research projects.

Dr. Adams said an appreciable portion of the council's program has been shifted toward the type of study which will permit clarification of the nature and role of unknown factors in distillers feeds. Also, it is necessary, he said, to constantly reevaluate feeds in the light of new nutritional findings, and consequently the council's research program has broadened each year.

Officers Elected

Cloud L. Cray, Jr., Atchison, Kansas, was elected president of the DFRC. Mr. Cray is vice president of Midwest Solvents Co., Inc.

Other officers elected by the council are: first vice president, Dr. Frank M. Shipman, Brown-Forman Distillers Corp., Louisville; second vice president, E. P. Henderson, Schenley Distillers, Inc., Cincinnati; treasurer, Millard Cox, Louisville, and secretary, Howard T. Jones, Washington, D.C.

Dr. Lawrence E. Carpenter, Cincinnati, is executive director of the council.

The conference sessions were conducted by Dr. Carpenter and were concluded with a panel discussion moderated by Dr. E. I. Robertson, John W. Eshelman & Sons, Lancaster, Pa. Panel members consisted of speakers on the day's program.

An eye-catcher of the conference was an exhibit of two champion Holstein milk cows in the hotel lobby, accompanied by two young women and a little girl model. One cow, Shanghai Exec. Midd London, was Ohio champion milk producer in 1955, going 24,350 lb. milk with 1,033 lb. butterfat. The other cow, Shanghai Exec. Supreme Sister, was nominated for All American honors in 1954 by the Holstein-Friesian Assn.

FEED DEMAND FACTORS—An analysis of feed demand factors was presented by W. T. Diamond, secretary of the American Feed Manufacturers Assn., Chicago.

"The long range outlook for the feed manufacturing industry is bright," he said. "The total demand for agricultural commodities will gradually work upward as our population increases and as diets are upgraded. The short-range outlook indicates a continuation of the cost-price squeeze for farmers; however, the feed industry can perform its greatest service in such a climate.

"For the producer or for the manufacturer, 1956 will be a year in which performance will count."

While consumption of meat was at a record level in 1955, there isn't a great deal of optimism that a new high will be reached in 1956, Mr. Diamond continued, because of competition for the consumer's dollar from a number of sources.

Not a Direct Parallel

Last year the feed manufacturing industry reached a plateau in its rise toward more importance in the agricultural picture, with production dropping 4% despite increased livestock numbers, he said. An increase in tonnage might reasonably have been expected had a good job been done in "selling the market," he said, but on the other hand the industry cannot draw a direct parallel between animal units and feed sales potential.

"Producer appreciation of the economies and efficiencies of modern feeds is always tempered by an unfavorable livestock market," he said. "This is especially true in surplus grain producing areas. This characteristic philosophy is unfortunate for the producer, and its resultant impact is also unfortunate for the feed manufacturer."

Also, he said, as a result of increased conversion efficiency of modern feeds, it must be accepted that a given quantity of food will be produced with a smaller volume of feed. "As manufacturers, we must view this as our contribution to progress," he noted. "It is possible many agricultural planners may fail to recognize that a new yardstick is needed to measure the actual feed needs of this country."

UNIDENTIFIED FACTORS — Dr. L. C. Norris of the poultry husbandry department at Cornell University called attention to work with the ash of unidentified factor supplements indicating that chicks require an unknown organic growth promoting factor or factors in addition to the unidentified mineral or minerals in the ash of the supplements. He reviewed evidence on this and other organic factors reported during the past year to be required by the chick, and presented additional information on the unknown mineral nutrient(s).

Dr. Norris also reported on Cornell work with lipoic (thioctic) acid which disagreed with the findings of DeBusk and Williams at the University of Texas indicating that a dietary source of lipoic acid is necessary for growth of young chicks and rats. No cause for the discrepancy in results is apparent at present, Dr. Norris said. The importance of lipoic acid in practical nutrition is still unknown.

A report on research on a vitamin E-active substance in brewers dried yeast and distillers solubles was part of Dr. Norris' paper. He said certain findings indicate that the unknown substance in hexane-extracted yeast is not an antioxidant, but rather functions directly as a substitute for vitamin E.

Dr. Norris reviewed reports during the past year on studies of crude sources of unidentified growth factors.

It is apparent from a review that little that was not previously known was revealed by the experimental work, Dr. Norris said. Just about all of the sources of factors studied have been previously reported to contain unidentified factors. In spite of this, Dr. Norris said, the results are of real value since they emphasize the need by poultry for growth factors not yet identified.

He also discussed the application of various improved procedures to the study of unidentified factors. He said they offer promise that eventually a solution of the problem of unidentified factors will be attained. However, adoption of major developments which have been made will greatly increase experimental costs.

Mineral Elements

Dr. Norris reported on further Cornell work in the past year on unidentified mineral nutrient(s). Thirty-two mineral elements alone and in combinations have been studied without obtaining any growth response. Because of these negative findings, studies were made on the hypothesis that the improved growth obtained with the ash of unidentified factor supplements was caused by a better balance of mineral elements known to be needed. However, the variations failed to produce any significant increase in growth.

Further studies with the ash of supplements have shown significant improvements in growth and feed efficiency.

The Cornell scientist also reported on work on unidentified mineral nutrient(s) required for bone formation.

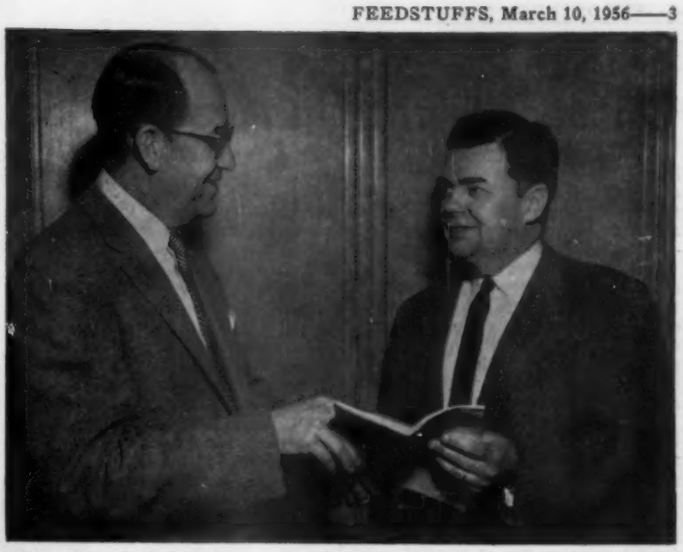
"In spite of all our efforts the past year, we have not been able to identify the mineral or minerals in unidentified factor supplements which increase the growth of chicks fed purified diets adequate in the known essential minerals," Dr. Norris continued. "We have also not been able to obtain any evidence that the problem is one of mineral imbalance, but we do not consider that we have entirely ruled out this possibility.

"Many more minerals remain to be studied, in addition to the 32 from which we have obtained no response. We hope to complete work on these

(Continued on page 6)

BLOOD FOR FEED

NOWATA, OKLA.—Farmers in this area were given a chance recently to exchange their blood for feed. Charles A. Whitford, chairman of the Nowata General Hospital Board, offered a 100-lb. sack of feed as a premium for each farmer who visited the bloodmobile and gave a pint of blood.



PRODUCTION SCHOOL—James C. McNeil, manager of production for Pillsbury Mills, Inc., Clinton, Iowa, shown at the right above, discusses the coming Midwest Feed Production School with Lloyd Larson, executive vice president of the Midwest Feed Manufacturers Assn., Kansas City. Mr. McNeil will be chairman of the sessions this year, which will be held in Kansas City Dec. 3-5.

Poultry Industry's Feather Fund Drive To Start April 16

CHICAGO — Kickoff date for the United Allied Poultry Industry's Feather Fund drive will be April 16, a national committee planning the drive decided here recently.

On that date, invitations to invest in this coordinated program for promoting increased consumption of poultry products will be mailed to feed companies, equipment manufacturers, and other firms dealing in supplies and services for the poultry industry.

The Feather Fund was devised as an equitable method of coordinating the appeals made by the poultry industry's major consumer promotion organizations for funds from allied industries. This plan will enable allied industries to make one annual investment for national poultry product promotions.

The Feather Fund grew out of the now famous "Harrisburg Agreement" of last May 9, at which time industry leaders set forth basic policies for achieving best results in promoting increased consumption of poultry products. The Harrisburg Agreement was approved by all major national organizations of the poultry industry.

Currently the Feather Fund is being administered by the administrative officers of the three national consumer promotion organizations; namely, Dr. James M. Gwin, PENB general manager; M. C. Small, National Turkey Federation executive secretary-treasurer; and R. Frank Frazier, National Broiler Council executive vice president.

Report Shows Marketing Costs On Beef Went Up Again in '55

WASHINGTON—Charges for marketing beef advanced about the same amount from the last quarter of 1954 to the last quarter of 1955 as they did in the seven years ending in 1955 —about one fourth in each instance.

The farm value of choice grade beef averaged 9¢ lb. lower in the last quarter of 1955 than a year earlier, whereas retail beef prices were down only about 3.5¢ lb. This means that approximately three fifths of the drop in farm value was absorbed by higher marketing costs.

These relationships are brought out in a report, "Beef Marketing Margins and Costs," published by the U.S. Department of Agriculture. The publication is one of a series being issued by the Agricultural Marketing Service in response to a request by Congress for intensive studies of costs of marketing farm products. A recently issued publication, "Marketing Costs for Food," presented an over-all view of recent changes in the spreads in prices between producer and consumer.

The report shows that the farmer got 70% of the consumer's dollar spent for beef in 1949; and only 62% in 1955. The difference between what the farmer gets and the consumer pays — the "marketing margin" — represents the return to marketing agencies for their services, including such costs as labor, supplies and transportation. Such costs have risen substantially in the last seven years.

The beef study shows that the differences between what the farmer receives for U.S. choice grade beef on the hoof and what the consumer pays for the meat has fluctuated widely during the seven years 1949-55.

Retail prices remained relatively stable, for example, during the latter half of 1954 when farm prices of cattle were rising, and during 1955 when farm prices generally declined. Marketing margins therefore narrowed substantially below the long-run average in the latter half of 1954, but widened markedly in 1955. The comparisons are based on the price of a pound of beef at retail and the price of its equivalent weight of 2.16 lb. in the live animal.

Named Manager

HARLINGEN, TEXAS—Irby Rankin, a member of the grain staff of the Commodity Credit Corp. regional office in Dallas, has been named general manager of the Valley Grain & Elevator Co. which has a 425,000-bu. elevator at the Port of Harlingen on the Intracoastal Canal. He succeeds Jack Fett of Harlingen. Ernie Mahula has been named plant superintendent.

Dwight Kopperud

JOINS PILLSBURY — Dwight Kopperud has recently joined the feed ingredients division of Pillsbury Mills, Inc., as merchandiser in Minneapolis, it has been announced by Ken W. Lawson, division manager. Mr. Kopperud was formerly with Northrup King & Co. and more recently with Newsome Commission Co.

Governor to Headline Convention of Oregon Feed and Seed Dealers

PORTLAND, ORE.—Several of Oregon's outstanding public figures will round out the speakers' program at the 25th annual convention of the Oregon Feed & Seed Dealers Assn., March 15-16 at the Multnomah Hotel, Portland.

Headlining the speakers' agenda will be the state's new chief executive, Gov. Elmo Smith, who will be making one of his first major addresses since assuming office in mid-February.

Another figure to appear on the program will be James W. F. Carman, bishop co-adjutor of the Episcopal Diocese of Oregon, who was consecrated in Portland recently.

E. L. Peterson, assistant secretary of agriculture, U.S. Department of Agriculture, Washington, D.C., will be another speaker. Mr. Peterson was formerly director of agriculture, state of Oregon, a position he held for 10 years. He is expected to bring the convention the latest developments on the soil bank program.

Also on the program will be Dan Dunham, Lakeview, Ore., national president of the Future Farmers of America. Mr. Dunham is the first Oregon youth to hold the national presidency.

Another speaker will be Carroll O'Rourke, one of the Northwest's most noted advertising experts. Mr. O'Rourke recently was named winner of the John B. Delauney award for his outstanding contribution to social justice in the state during 1955. The award is made annually by University of Portland.

The annual meeting attracts some 600 members of the feed, seed, grain and fertilizer industries throughout the Pacific Northwest. A special feature of this year's convention will be the honoring of the association's 16 past presidents, of which 15 are still living.

LEAN HOG GROWTH

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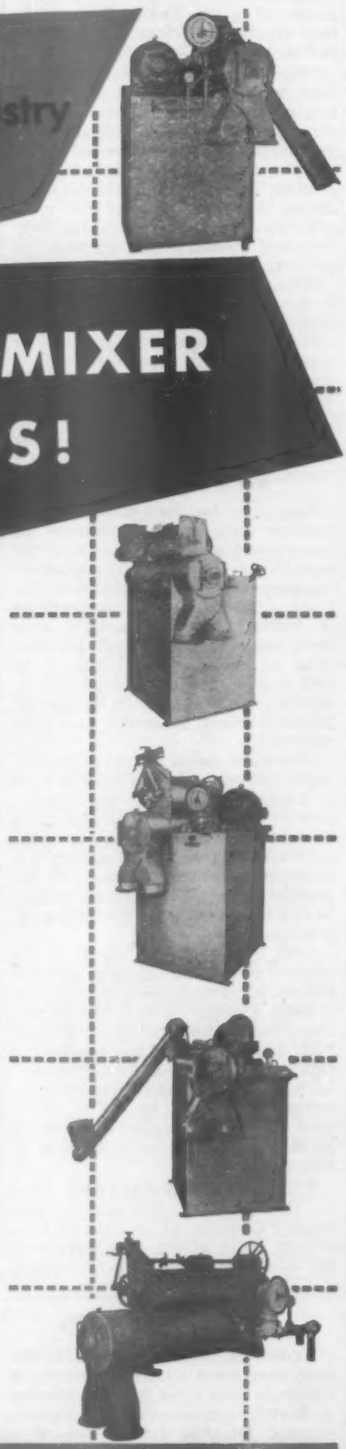

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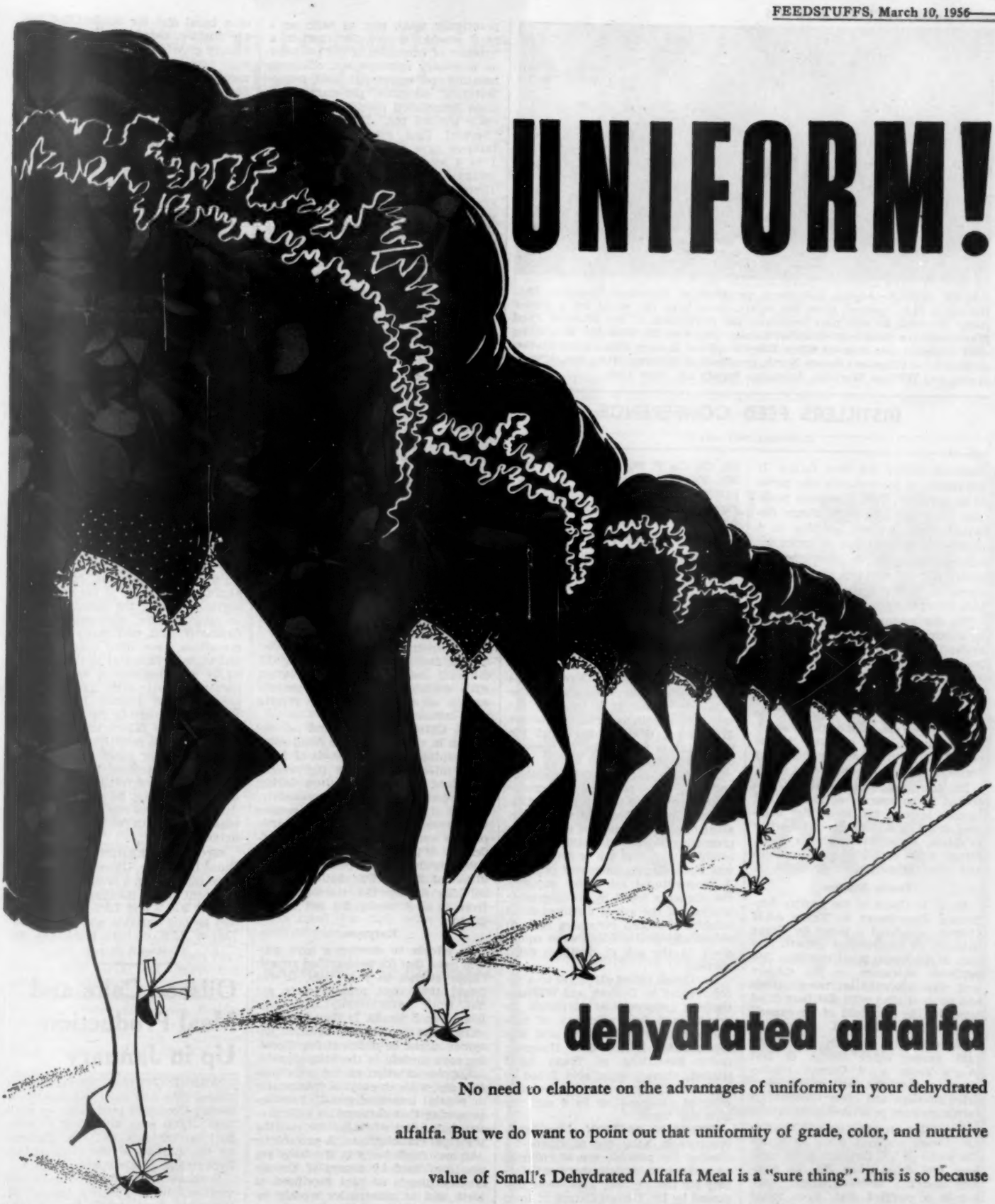

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PARTY GOERS—Adolph Rosenberg, president of Stabilized Vitamins, Inc., Brooklyn, N.Y. (second from the right), looks over the menu for a dinner party of which he was host preceding the convention of the Midwest Feed Manufacturers Assn. convention in Kansas City Feb. 26. With Mr. Rosenberg (left to right), are Howard Riley, Riley Feed Co., Kansas City representative of Stabilized Vitamins; James North, president of Nutrena Mills, Inc., Minneapolis, and William Wartens, Albumina Supply Co., New York.

DISTILLERS FEED CONFERENCE

(Continued from page 3)

minerals within the near future. If the results of these studies also prove to be negative, then it appears probable that the observed effects obtained from the ash are due to a particular combination of unknown mineral elements or that the requirement is not for mineral elements as such but perhaps for complex mineral ions.

"In the meantime, it is necessary to continue to use crude sources of unidentified growth factors in composing practical rations for chicks and breeders in order to be sure of supplying a sufficient quantity of the unidentified mineral nutrients. It is also necessary to include these materials in practical rations in order to make them adequate in the organic growth promoting factor or factors."

Dr. Norris said that materials reported to be sources of unidentified factors include fish meal, fish solubles, dried milk products, dried whey products, dried liver, alfalfa meal, forage juice, distillers dried solubles and other fermentation products.

Texas Studies

Dr. J. R. Couch of the poultry husbandry department at Texas A&M College presented a paper by Texas workers on unidentified growth factors in chick and poult nutrition. He reviewed literature on the subject and then reported on recent chick and poult studies with distillers dried solubles. He also told of an experiment with thioctic acid.

In reviewing research, Dr. Couch told, among other things, of last year's Texas and Cornell studies showing that the ash of distillers dried solubles and other unidentified factor sources promoted growth.

Reporting on chick growth studies, Dr. Couch outlined work in which the levels of 5% distillers dried solubles, 10% dried whey, 5% fish solubles and 5% brewers dried yeast, fed in a purified diet, were found to be required for maximum growth stimulation. Further studies showed that distillers dried solubles at a level of 3% was sufficient to produce the maximum growth response from this product in these studies.

The ash of distillers dried solubles produced a response equal to half that produced by distillers dried solubles. A reconstituted ash mixture which supplied the mineral elements found in the solubles upon spectographic analysis was as effective as the ash of the solubles. Single additions of silicon, silver and titanium were ineffective in duplicating the response obtained with the ash of distillers solubles or the reconstituted ash. Further studies have shown that the growth response due to ash of distillers dried solubles could not be duplicated by feeding of Al, Ba, Ca, Co, Cu, F, Pb, Sr, Na, K, P, Mn, Mg, Fe or Zn.

Dr. Couch also reviewed evidence for a factor in distillers dried solubles which affects calcium utilization.

Turkey Poults

He went on to report on experiments indicating that distillers dried solubles anld brewers dried yeast contain different unidentified growth factors for the turkey poult and that these factors are additive in their effect. An antibiotic fermentation residue stimulated the growth rate of poults when added to the diet at the 1% level. The 5% level of this product was optimal for growth. The data, Dr. Couch said, point to the existence of similar growth factors in distillers dried solubles and the fermentation residue for the growth of turkey poults.

The ash of distillers dried solubles and dried whey produced an increase in the growth of turkey poults. Distillers dried solubles ash was equivalent to about one half of the growth promoting activity of distillers dried solubles, while the ash of dried whey was equal to the untreated product. A reconstituted ash which supplied the elements found by spectographic analysis of the ash of distillers dried solubles produced responses in both chicks and poults which were equivalent to the ash of distillers dried solubles.

Dr. Couch called attention to a recent report by DeBusk and Williams showing appreciable increases in growth and feed efficiency of rats and chicks when thioctic acid was incorporated in the diet. However, under conditions of Texas A&M studies, alpha-thioctic acid failed to stimulate the growth of chicks when injected at levels up to 4 mg. per bird per week.

SWINE NUTRITION—New developments in baby pig nutrition—including the possible use of enzymes to make soya protein more satisfactory for feeding baby pigs—were discussed by Dr. Damon Catron of Iowa State College. He also discussed early weaning, research on protein and carbohydrate for baby pigs, distillers solubles and unidentified growth factors.

Dr. Catron said that at least 15 feed manufacturers have started to make pre-starters for early weaning. Most of the progressive hog producers who have tried early weaning, he said, have weaned their pigs at 2 to 3 weeks or 8 to 12 lb. Fifty-eight Iowa experiments involving more than 5,000 pigs, including cooperative on-the-farm tests where pigs are weaned between 2 and 3 weeks, have shown: 50-lb. pigs by 8 weeks of age on a total of 80 lb. of feed per pig, or 1.8 lb. per pound of gain, with less than 5% mortality.

"It is no longer a question as to whether we can successfully and practically wean pigs as early as 1 to 3 weeks of age, but rather a question of education of the producer on necessary management, adequate housing and equipment, and manufacturing adequate pre-starter rations formulated specifically for the early weaned pig," Dr. Catron said. "Several feed manufacturers and farmers have tried to wean pigs at 1 to 4 weeks onto rations not nutritionally adequate for baby pigs. Therefore, many have been discouraged and pessimistic about early weaning. A recent survey, however, showed that 9 out of 10 producers who had tried early weaning, planned on continuing the practice."

Nutrient Requirements

Dr. Catron discussed recent Iowa research on the protein, fat and carbohydrate requirements of the baby pig. An experiment with different levels of protein and fat, using a protein composed of soybean meal and dried skim milk, showed the best over-all performance on 20% protein. There was no significant difference between levels of fat fed; however, from a physical standpoint there was an advantage in adding fat. The data also indicated, as might be expected, that better results are obtained with the higher level of fat (10%) on the higher level of protein (30%).

Experiments to determine what fraction of dried skim milk was responsible for improved growth with increased dried skim milk in baby pig rations showed that both the protein (casein) and carbohydrate (lactose) were responsible for improved growth over soya protein-starch diets.

An experiment on the qualitative carbohydrate requirement, using 11 different carbohydrates in a ration with soybean meal as the protein source, showed outstanding results with lactose.

Dr. Catron also reported on research in which distillers dried solubles replaced different levels of dried skim milk, and loss in pig weight and feed efficiency resulted during the pre-starter period. Subsequently, it was determined that the results were caused by reduction of the milk protein and casein and by the insufficiency of proteolytic enzymes in the baby pig during the period. The addition of 2½ or 5% distillers dried solubles during the starter period from 3 to 8 weeks did not impair growth.

Enzymes

In efforts to develop a soya protein basal diet for unidentified growth factor studies in baby pigs, it was found that soya protein diets did not work satisfactorily with pigs from 1 to 5 weeks. It then was surmised that proteolytic digestive enzymes might be deficient for digesting soya protein in the baby pig.

Supplementation of the soya protein diet with an enzyme (pancreatin or pepsin) improved growth rate approaching that obtained on milk protein basal diet when lactose was the principal carbohydrate. A proteolytic enzyme insufficiency in the baby pig was confirmed by assays of the secretory glands of pigs sacrificed at birth and at consecutive weekly intervals until 7 weeks of age.

In recent studies of the effects of supplementing soya protein diets with different enzymes, the Iowa station has equaled the growth produced by milk protein by supplementation with proteolytic enzymes of choice. The feed efficiency produced by milk protein has not yet been equaled, but this may come when more is known about necessary amino acid supplementation.

In order to develop more economical pre-starters for pigs below 5 weeks of age, it now appears that it may be possible to replace milk protein with soya protein provided that proteolytic enzymes of choice are added to the pre-starters, or the soya protein is enzymatically pre-digested prior to its inclusion in the rations.

Dr. Catron, discussing development of a basal diet for unidentified factor studies, noted that while satisfactory growth was not obtained with soya protein diets, a significant response was obtained from unidentified factors when they were added to the Iowa pre-starter or to a basal diet with 40% dried skim milk. One finding was that the addition of increased levels of distillers dried solubles from 2.5 to 10% produced successive increments in growth over the dried skim milk basal diet.

Reproduction

Little is known about the influence of specific environmental factors on the several rather distinct phases of the reproductive process in swine. This was pointed out by Dr. R. H. Grummer of the University of Wisconsin in a paper entitled "Sow Fertility Is Sensitive to Environment."

Gross variations in treatment demonstrate that the ovary, ova and/or uterine environment are sensitive to changes, Dr. Grummer said. A factor favorable to one reproductive phase, he continued, may be deleterious to another. There are several kinds of barriers to successful fertility that are probably due to inheritance.

"Remote as it may seem, such things as the kind of creep feed, the quality of mother's milk, or the time of weaning might have an effect on the future reproductive capacity of a gilt or sow," Dr. Grummer said. "No one knows how early in a pig's life her fertility may be influenced adversely or favorably."

Profitable time has been spent studying effects of environmental variation during the lactation period on post-partum performance, Dr. Grummer said, and many gross observations have been made on size and vigor of litters at birth as affected by nutrition during and prior to gestation. But little research has been directed toward investigating the point or place in the reproductive process where failure or variation in performance is most likely to occur.

Dr. Grummer noted that nutrition is frequently accused in cases where the level of sow fertility is low; yet other factors may be at fault.

He went on to report various findings dealing with feeding and reproduction.

BROILER FEEDING—Prof. T. D. Runnels of the University of Delaware reported on a broiler feeding experiment using distillers dried solubles at 2.5, 5 and 7.5% levels in the diet as one variable and a combination of 2.5% of both menhaden fish

(Continued on page 77)

Oilseed Cake and Meal Production Up in January

WASHINGTON — Production of oilseed cake and meal in January exceeded December production by more than 21,000 tons, according to a report on the fats and oils situation by the Bureau of the Census, U.S. Department of Commerce.

Soybean and cottonseed cake and meal output in January topped the December levels while linseed cake and meal production fell off slightly.

January production of soybean cake and meal was 567,037 tons, compared with 548,659 tons the month before. Cottonseed cake and meal output in January totaled 320,731 tons, compared with 317,153 tons in December. And the production of linseed cake and meal in January was 59,520 tons as against 60,084 tons a month earlier.

Stocks of cake and meal at crude oil mill locations the end of the month, according to the report, increased for soybean and cottonseed but dropped off for linseed. At the end of January the tonnage totals were: soybean 99,924, cottonseed 191,461, linseed 15,394. This compared with the end of December stocks as follows: soybean 66,389 tons, cottonseed 163,049 tons, linseed 17,035 tons.

3% Increase in Feedstuffs Use Reported for First Quarter

WASHINGTON — Consumption of feedstuffs the first three months of the 1955-56 season was 3% above a year ago but nearly 2% below the five-year average, according to the U.S. Department of Agriculture. In a quarterly feed market summary, USDA says that the increased consumption reflects the larger livestock numbers, since disappearance per animal unit was about the same as last year. Feedstuffs prices have declined since the first of the season and in February averaged about 17% below a year ago, the report states.

Consumption of commercial by-product feedstuffs, October through December, 1955, computed by adding production and imports to beginning stocks at processing plants and subtracting exports and ending stocks at processing plants, amounted to 4,837,000 tons. This is 3% more than the 4,694,200 tons consumed in the same period a year earlier. With this exception it is the smallest since October-December, 1950.

Animal Units Increase

The number of grain consuming animal units fed during the 1955-56 season is estimated at 171 million. This compares with 165.6 million in 1954-55 and 167.1 million the five-year (1949-53) average. On the basis of these numbers 56.6 lb. of feed were fed per animal unit the first three months of this season compared with 56.7 lb. last season and 58.9 lb. the five-year average.

Consumption of oilseed meals for the first quarter of the season increased by about 170,000 tons and totaled 2,613,000 tons, the report stated. With the exception of last season, consumption was the smallest since 1950. Production of oilseed meals increased by over 320,000 tons while exports totaling 317,000 the first quarter were 130,000 tons more than last season. Imports of oilseed meals at 22,500 tons were about the same as a year ago.

Consumption of soybean meal at 1,534,100 tons the first quarter was about 145,000 tons more than the comparable period of 1953 and 1954 but was about the same as the comparable quarter in 1950, 1951 and 1952.

Consumption of cottonseed meal totaled 893,900 tons the first quarter. This was about 40,000 tons more than a year earlier but 166,000 tons below the first quarter average of the three previous seasons. Consumption of other oilseed meals was slightly below last year.

Consumption of grain by-product feeds totaled 1,618,600 tons the first quarter of the season. This was 12,500 tons below the first quarter of last season and the smallest for the period since 1941, USDA reports. Disappearance of wheat millfeeds at 1,167,700 tons was the smallest since 1938. While production was slightly larger than last year, imports were smaller and exports were larger, leaving a smaller amount for feed. While the output of gluten feed and meal reported at 255,800 tons was slightly below last year, it was about 21,000 tons above the five-year first quarter average.

Supplies of other grain by-product feeds were slightly above last year. Alfalfa meal shipments totaled 246,300 tons the first three months of the feeding season, 42,000 tons more than a year earlier. Supplies of tankage and meat scraps at 289,300 tons and of fish meal at 69,800 tons were both at near-record levels.

Prices Decline

Feedstuff prices declined rather sharply at the beginning of the season reflecting in part the large supplies and the relatively unfavorable feeding ratios. Since November, prices have been fairly steady with only a slight decline in February.

Prices in February averaged 17% below a year ago reflecting in part the lower general price level and the plentiful supplies. The index number of wholesale feedstuff prices averaged 185.4 in February compared with 194.4 in October, 222.8 in February, 1955, and 216.9 in October, 1954.

At the end of February, USDA reports, feedstuff prices averaged 19% below the 10-year (1944-53) average. Comparing the price of each feed with the 10-year average at the principal markets, tankage at 37% and meat scraps at 33% below the 10-year average were relatively the cheapest.

Soybean meal averaged 21% below the 10-year average while cottonseed meal and linseed meal were 19 and 13%, respectively, lower than average. Bran prices averaged 15% less than the 10-year level while middlings and grey shorts were 19% below. Fish meal prices averaged 8% above the 10-year average while alfalfa meal was 12% below the 10-year average.

Raymond Bag Operates As Albemarle Division

RICHMOND, VA.—Announcement of the formation of the Raymond Bag Corp., division of the Albemarle Paper Manufacturing Co., has been made by F. D. Gottwald, president of Albemarle, from the parent company's offices in Richmond.

The new corporation combines the manufacturing facilities of the Raymond Bag Co. of Middletown, Ohio, with those of the multiwall bag division of Albemarle, located at Richmond. Paper for both operations will be supplied by Albemarle's two Richmond paper mills and the firm's Halifax paper division at Roanoke Rapids, N.C., making the new corporation a fully integrated operation with general offices at Middletown, Ohio.

Officers of the Raymond Bag Corp. include F. D. Gottwald, chairman of the board; C. L. Mers, president; J. H. Lawrence, vice president, manufacturing; J. R. Clements, vice president, sales; W. G. Shaw, treasurer, and C. C. Mers, secretary.

C. H. Johnson Resigns

HUMBOLDT, NEB. — Charles H. Johnson has resigned as assistant to the president of the O. A. Cooper Co., Humboldt, Neb., and has returned to Crete, Neb. Mr. Johnson formerly was associated with Crete Mills. He has not announced future plans.

COMPLETE SALES COURSE—Thirteen Wayne Feeds salesmen from 10 sales districts of Allied Mills, Inc., recently completed the company's advanced sales training course held at the Moraine Hotel, Highland Park, Ill. The men who completed the course were, front row, left to right: Lorin Weigard, Pennsylvania; Jack Larson, Wisconsin; Ron Ulrich, Minnesota; Carl Lowe, Virginia; Robert Manchester, Illinois; LaVere Magruder, Indiana. Back row, left to right: Harold Kunze, Iowa; Erv Worzel, Pennsylvania; Ray Stradling, Pennsylvania; James Harris, Alabama; Robert Heberer, Missouri; John Collins, Tennessee; Dick Whiteman, Ohio. On the faculty for the school were staff officials of Allied Mills' educational service, research, specialty foods, advertising and sales training divisions.

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USDA Reports 300 Million Bushels of Corn Under Loan

By JOHN CIPPERLY
Feedstuffs Washington Correspondent

WASHINGTON — The sizeable movement of corn into the government loan program this year highlights the price prospects for corn by mid-summer. This week the U.S. Department of Agriculture announced that corn farmers had put more than 300 million bushels of the big feed grain under federal loan protection through February 15, 1956. That quantity plus the inventory holdings of Commodity Credit Corp. as of January 31, 1956, gives CCC control over about 1.05 billion bushels of corn.

In the meantime, farmers owning feed grains are abetting the administration drive to force up feed grain prices as other small grain impoundings are climbing with corn. For example, there is reported by CCC a total loan holding of more than 67 million bushels of oats; more than 95 million bushels of barley; 12 million bushels of rye, and nearly 59 million hundredweights of grain sorghum.

For all loan programs except corn the final date for loan coverage was Jan. 31, 1956. The final date for corn loan commitments is May 31, 1956—ample time for farmers to swell the loan protective cover and thereby add to bullish impulses in the cash corn market.

A factor worth major consideration by the feed industry and soybean processors is the amount of that crop now held in the loan. CCC says that as of Jan. 31, 1956, nearly 30 million bushels of soybeans were under the government loan umbrella. This amount represents a little more than a month's crush by the processing plants and with oil export demand pressing at maximum availability levels, this condition might indicate higher soybean prices.

As reported in Feedstuffs last week, government officials see bean prices moving into the $3@3.50 range this year.

Consolidation of Feed And Turkey Companies In Iowa Announced

IOWA CITY, IOWA — Announcement was made this week of the consolidation of Maplecrest Turkey Farms, Wellman, Iowa, and Protein Blenders, Inc., of Iowa City. The announcement was made by A. C. Gingerich, president of Maplecrest, and C. Urban Kelly, president of Protein Blenders, a feed manufacturing firm.

With the consolidation, Mr. Gingerich will become chairman of the

A. C. Gingerich C. Urban Kelly

board of Maplecrest. Mr. Kelly will continue as president and chairman of the board of the Iowa City feed company.

Protein Blenders, Inc., has acquired substantially all of the common stock in Maplecrest, Mr. Kelly said.

Sales of Maplecrest, termed the largest independent turkey processing corporation, were $7 million for the past year. Mr. Kelly said he anticipates that combined sales of Protein Blenders, its subsidiaries and Maplecrest will exceed $15 million in the next fiscal year. He said plans call for expansion of the Maplecrest market. The turkey firm will continue to have the same executives.

Protein Blenders will manufacture feed for Maplecrest, but its salesmen, who cover territories in Iowa, Illinois, Nebraska and Missouri, will not represent Maplecrest. The latter firm's sales staff will handle sales of turkey poults and Maplecrest poultry feeds to dealers in the Midwest.

Mr. Kelly said Protein Blenders, which was formed in 1946 and began manufacturing feed in 1948, has expanded its plant eight times in the past eight years. Subsidiaries of the firm include English River Concentrates, Inc., at Riverdale and Hills (Iowa) Grain & Feed, Inc.

Mr. Kelly said no additional stock offerings are anticipated by Protein Blenders.

The Maplecrest facilities include a hatchery building with a capacity of 1 million poults annually, turkey breeding farms, a processing plant, a feed plant and an alfalfa dehydrating plant.

VIRGINIA FEED TAX BILL KILLED

RICHMOND, VA. — A Virginia house bill which would have authorized a special tax of 10¢ ton on all commercial feed and fertilizer sold in the state was killed in committee last week, it has been reported by the American Feed Manufacturers Assn. The bill was introduced in the Virginia House of Representatives Jan. 25. AFMA issued a special bulletin to its members shortly thereafter, alerting them to the problem and urging vigorous opposition. The AFMA board of directors recently reaffirmed the association position on this type of legislation, deciding that the AFMA will oppose such legislation wherever it arises.

Chicago Feed Club To Hear T. G. Dyer

CHICAGO—Thomas G. Dyer, general sales manager of Sargent & Co., Des Moines, will be the featured speaker for the next meeting of the Chicago Feed Club. The group will meet in the Florentine Room of the Congress Hotel here at 6 p.m. March 16.

FEED STORE OPENED

GALLUP, N.M. — Frank Cavigga has opened the Navajo Feed Store here at 209 North Third Street and will handle Ralston Purina Co. feeds.

Delmarva Broiler Prices Slip Fraction; Placements Up Slightly

SALISBURY, MD. — Delmarva broiler prices slipped a fraction of a cent a pound last week with the average price paid on the farm set at 22.5¢. A week earlier the price was 22.9¢.

According to the Delaware-Maryland Crop Reporting Service, broiler chick placements in Delmarva at 3,434,000 for the week ending March 3 were 1% above a week earlier and 6% above the level of a year ago.

A decrease from a week earlier of 15% in inshipments was more than offset by an increase of 5% in local hatchings, accounting for the change in placements. Settings at 4,180,000 were 5% above the previous week and 21% above the same week of 1955.

Chick placements in Delaware totaled 1,717,000 or 2% below the previous week. Egg settings at 2,041,000 were up 10%. In Maryland, chick placements totaled 1,546,000 or slightly below the previous week; egg settings at 2,209,000 were up 1%.

Delmarva growers marketed 2,610,000 broilers during the week ending March 3. This was 2% more than the previous week and 10% more than the corresponding week last year. Marketings were 97% of the average weekly placements 10 to 13 weeks earlier. Of the local birds sold, 314,000 were shipped out alive and 2,296,000 were processed locally.

The price of broiler feed dropped to $91.51 ton from $93.17 a week earlier. A slight drop in broiler prices and drop in feed cost left the broiler meat-feed ratio the same as a week earlier at 4.9.

U.S. Chick Placements Down

Nationwide chick placements in 22 states totaled 23,644,000 for the week. This was slightly less than during the previous week but was 16% more than during the same week a year ago. Of the 22 states, placement increases occurred in Indiana, West Virginia and Georgia while greatest decreases occurred in Connecticut, North Carolina and California.

Egg settings in 22 states totaled 35,246,000. This was 3% more than the previous week and was 26% more than during the same week a year ago. Increases over the previous week occurred in 15 of the 22 states with largest increases occurring in Missouri, Delaware and Arkansas. Largest decreases occurred in Pennsylvania, Virginia and Washington.

Estimated commercial slaughter of all young chickens, including commercial broilers, fryers, caponettes and other young stock totaled 57,181,000 lb. during the week ending Feb. 25. This was 2% below the level of the previous week but 32% above the level of a year ago.

Walter N. Jones

2 Vice Presidential Assignments Made By Arcady Company

CHICAGO — The appointment of Walter N. Jones as vice president in charge of sales and L. S. Moore as vice president-finance has been announced by F. W. Adams, president of Arcady Farms Milling Co.

Mr. Jones has been in various phases of the feed industry for some 30 years. His experience ranges from a professor of animal husbandry to feed industry nutritionist, sales manager and general manager.

For 21 years Mr. Jones was with Vitality Mills, Inc., Chicago. When he resigned in 1953 he was vice president and general manager. Earlier he had been an animal nutritionist and sales manager with Albert Dickinson Co., Chicago. Last year he was named a vice president of Arcady Farms.

Before entering the feed industry, Mr. Jones was lecturer and assistant professor of animal husbandry at the University of British Columbia, Vancouver.

Mr. Moore is a graduate of Washington University, St. Louis. He was a senior accountant with Alcoa Aluminum and comes to Arcady from A. T. Kearney & Co. where he was a management consultant.

Arcady also has announced the appointment of L. W. Ramsey Advertising Agency, Chicago and Davenport, to handle all phases of the company's advertising and promotional activities.

Arcady manufactures a complete line of poultry, cattle, hog and dairy feeds, as well as small animal feeds. The firm's products are distributed throughout the Midwest, East and in southern states.

Chicks Placed in Principal Broiler Areas

(000's omitted)

Week ending:	Maine	Conn.	Penna.	Ind.	Ill.	Mo.	Del.	Md.
Dec. 31	756	537	572	740	139	519	1,607	1,143
Jan. 7	774	489	580	634	172	493	1,583	1,230
Jan. 14	764	557	617	763	162	471	1,570	1,327
Jan. 21	740	563	605	645	141	516	1,498	1,181
Jan. 28	713	523	668	761	136	608	1,604	1,225
Feb. 4	759	483	695	716	177	617	1,543	1,279
Feb. 11	779	567	781	798	217	669	1,451	1,407
Feb. 18	799	664	786	771	232	705	1,613	1,384
Feb. 25	744	586	769	704	179	638	1,745	1,547
March 3	758	530	798	835	181	584	1,717	1,546

Week ending:	Va.	W. Va.	No. Car.	So. Car.	Ga.	Fla.	Ala.	Miss.
Dec. 31	1,197	466	1,366	216	3,693	181	1,319	885
Jan. 7	1,220	493	1,397	190	3,997	212	1,479	897
Jan. 14	1,253	446	1,438	193	3,995	253	1,328	886
Jan. 21	1,118	483	1,387	209	4,093	239	1,430	886
Jan. 28	1,194	496	1,490	254	4,201	284	1,531	925
Feb. 4	1,265	504	1,551	271	4,565	262	1,483	1,065
Feb. 11	1,314	505	1,690	211	4,415	262	1,561	1,017
Feb. 18	1,345	498	1,618	281	4,415	217	1,668	1,001
Feb. 25	1,355	494	1,639	248	4,256	269	1,636	1,066
March 3	1,415	568	1,423	264	4,388	271	1,662	1,068

Week ending:	Ark.	La.	Texas	Wash.	Oregon	Calif.	Total 23 areas 1955-56	1956
Dec. 31	1,730	240	1,708	203	140	1,618	20,416	14,346
Jan. 7	1,699	270	1,742	217	161	1,125	21,109	15,025
Jan. 14	1,674	262	1,727	229	184	1,087	21,186	14,397
Jan. 21	1,531	247	1,674	210	150	1,125	20,671	14,959
Jan. 28	1,707	283	1,817	227	184	1,208	22,039	17,019
Feb. 4	1,916	254	1,886	208	171	1,102	22,745	18,794
Feb. 11	1,958	300	1,902	212	185	1,106	23,306	19,825
Feb. 18	1,815	350	1,860	284	160	1,182	23,628	19,963
Feb. 25	1,896	311	1,908	274	151	1,271	23,716	20,273
March 3	1,857	264	1,930	216	166	1,213	23,644	19,880

FARM BILL

(Continued from page 1)

ship of the bi-partisan duo of Sen. George Aiken (R., Vt.) and Sen. Clinton P. Anderson (D., N.M.).

Also, no small credit is given to James McConnell, former assistant secretary of agriculture, who played a considerable part in bringing about a better understanding of cotton marketing problems with cotton bloc leaders.

Before the Senate began final debate, Sen. Aiken put into the record an agreement between Ezra Taft Benson, secretary of agriculture, and cotton state leaders that USDA would modify its discretionary power over the support level and acreage allotments for cotton for the 1956-57 crops. This announcement helped clinch what had been a sure victory for the flexible support advocates.

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Government Controls Seen As Dangerous for Grain Trade

SIOUX CITY, IOWA — The government will be the only market for U.S. grain crops unless the trend toward socialization of the nation's grain marketing industry is changed, Robert C. Liebenow, executive secretary of the Chicago Board of Trade, warned a group of livestock feeders in Sioux City, Iowa, March 1.

Mr. Liebenow said the U.S. is only "one step" away from the Canadian wheat marketing system. In Canada, all wheat going outside the province in which it is grown must be sold to and bought from the government wheat board.

"The Canadian Wheat Board not only sets the price it will buy and sell for, it also tells the farmer how much he can sell," Mr. Liebenow explained. "As of today, Canada still has not been able to market all of its 1954 crop and relatively little of the 1955 crop.

"The Canadian farmer has to bear the cost and responsibility for finding a storage home for his wheat and little space or transportation is available. The unsold 1955 harvest has largely been kept on Canadian farms by government decree while crops from previous years jam market channels. Thus the farmer has to pay for storing grain he can't sell and take less for grain he does sell," Mr. Liebenow declared.

In the U.S., reliable estimates indicate that from one-fourth to one-third of the 1955 commercial corn crop will go into government storage. This means much of the current market supply is siphoned out of normal consuming channels and goes directly into government warehouses to come back and depress prices several years from now, according to Mr. Liebenow.

The Commodity Credit Corp. is making everyone connected with the grain industry a chattel of the government, Mr. Liebenow asserted. "Farmers are faced with severe acreage cutbacks and dependence on government markets as outlets for their crops; country elevators no longer perform marketing functions but act as agents for the government; processors are forced to rely more on government supplies for their needs and grain exchanges find it difficult to perform normal functions of recording true values for grains because government operations create abnormal prices," he said.

"For all practical purposes, the government today is the market in this country for both wheat and corn. By controlling supplies of these two grains, the government also is able to effectively control prices for other grains to a large degree," Mr. Liebenow said. He suggested that the government's anti trust division should take a look at the CCC agency operations that now constitute a price monopoly in grains.

Mr. Liebenow expressed amazement that U.S. legislators could perpetuate "fraudulent solutions" to farm problems in the face of opposition from farm organization leaders and top agricultural economists over the past 25 years. He pointed out that "complacency" among members of the grain marketing industry enabled the government to "step in and practically take over the industry."

"Farm income is down, farm debt is up, production costs are high and prices have declined sharply. In order to cure all of these ills, we must recognize that something basic is wrong and that an entirely new approach is needed if long term prosperity for agriculture is to be attained," Mr. Liebenow explained. "Agriculture has a very complex problem that will take great courage to solve. It must be recognized that we don't have one large agricultural problem but thousands of smaller ones."

He predicted the family farm would not disappear in this country but warned the producer group that the average size of farms would get larger and require greater capital investment in the future.

UNCLE TOM'S FEED FABLES

The other night I got to thinkin' about an old timer named Herodotus. He lived about 500 B.C. and that's a long time ago. Herodotus was quite a story teller and one of his best was about a young king named Amasis or something like that.

This king was a bachelor, I guess, and while he was a smart cookie and a first class king, he raised a lot of the Old Ned—drinkin' and playin' around and stuff like that. Every morning though he was on the job bright and early and did all right.

I guess a couple of the old heads in his court got worried, probably 'cause they figured if the king lost his job they'd lose theirs and maybe their heads, too. So they just jumped all over him at breakfast one morning and told him he'd better cut it out.

But they might just as well of kept their mouths shut 'cause the king told them something like this:

"When I go hunting, I stretch the string on my bow real tight and when I shoot the arrow flies far and true to the mark. When I am not using the bow I unstring it, 'cause if I kept it tight all the time, the bow would lose its spring and be no good. See what I mean?"

But the old guys didn't savvy, so Amasis went on.

"Well it's this way! I work like the very Devil most of the day and if I didn't relax and take off the tension, I'd break under the constant strain."

Course in this day we say it a lot easier, "All work and no play makes Jack a dull boy." Although there are a lot of people who don't agree, they shorten it up and say, "All work and no play makes Jack!"

One thing I am sure about though. Amasis was right when he said, "You can't be tight all the time and get the job done."

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Tom Grill

REJOINS NATIONAL—Tom Grill of Kansas City has returned to the National Alfalfa Milling & Dehydrating Co. as a district sales manager, according to an announcement this week by A. R. McFadden, vice president. Mr. Grill had been with National since 1950 until entering private business about a year ago. He served in the Lamar, Colo., headquarters and in sales positions in St. Louis and Kansas City. He will make his headquarters in the general sales offices in Kansas City.

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Purina Expanding At Lafayette, Ind.

LAFAYETTE, IND.—Construction was started recently on additions to the plant of the Ralston Purina Co. here. The modernization program includes an additional warehouse unit, plus new feed manufacturing machinery for the mill. Also being built is a one-story office building and a new boiler plant. It is expected that construction will be completed by August.

This is the second phase of the modernization program at the Lafayette mill. Last year the batching unit at the plant was rebuilt.

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Concern Expressed on Future Of U.S. Grain Storage Policy

WASHINGTON—A committee from the grain trade appeared before the House sub-committee on agricultural appropriations March 1, and took to task the sub-committee's first volume of a report highly critical of the terms of the Uniform Grain Storage Agreement and certain elements of the grain marketing machinery.

Spokesman for the group was Roy F. Hendrickson, executive secretary of the National Federation of Grain Cooperatives and its associated organizations and the National Grain Trade Council, represented by William F. Brooks, executive secretary of that latter organization.

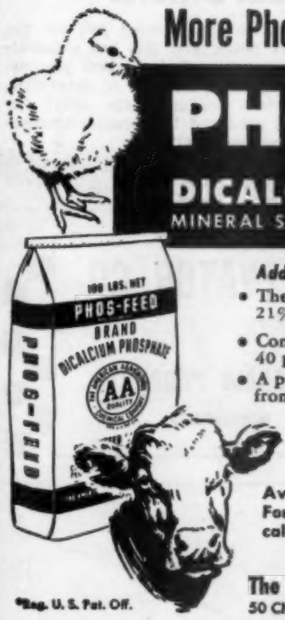
Mr. Hendrickson charged that the first volume of the sub-committee's report—if unanswered—would leave some seriously misleading impressions. He revealed the efforts of the cooperatives and proprietary trade to expand storage space in meeting requirements of federal storage to permit producers of grains to obtain protection of the loan programs. He noted the difficulties of the trade in providing storage space after World War II when materials were scarce, money tight and Uniform Grain Storage Agreement rates unattractive for new investment capital in storage expansion while at the same time the federal government was undertaking new ventures in bin storage in direct competition with the trades.

At that time the trade received assurance from Charles F. Brannan, then secretary of agriculture, that priority would be given to standard warehousing facilities over use of bin sites and that some adjustment in storage and handling charges reflecting continuing increased costs of operation would be made and that the U.S. Department of Agriculture would consider new evidence as it developed bearing upon cost elements. Upon this statement of good faith the warehouse industry went full speed ahead to provide storage cover for the grain crops of the producers, Mr. Hendrickson said.

Again in 1953 with a change in the administration the cooperative trades expressed concern over possible changes in warehousing policy and were assured by the new administration that the bin site space of the government would be construed as emergency or stand-by facilities and again that consideration would be given to new evidence of increased costs in handling and storing grain. According to Mr. Hendrickson, "These costs have increased every year and the end is not in sight." The report of the sub-committee appears to have ignored this background, Mr. Hendrickson asserted.

Mr. Hendrickson's statement disclosed information concerning storage costs between government bin sites and private facilities. The information was made available from cost studies completed by the Kansas and Iowa experimental stations. Annual average costs due to shrinkage and

(Continued on page 75)



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USDA Researchers Review Findings From Cottonseed Oil Meal Studies

NEW ORLEANS—Researchers at the U.S. Department of Agriculture's Southern Utilization Research Branch in New Orleans recent'y issued a report reviewing new information on cottonseed processing and the results in feeding the cottonseed oil meal.

Properly processed cottonseed meal has been found to be a good source of protein for growing pou'try, the report notes, and this has stimulated research to find the best processing condition and also to determine, in actual feeding tests, what the mea's produced by present commercial methods will do.

There are still some problems to be solved, those including egg yolk discoloration and development of chemical measures of nutritive value, the USDA researchers pointed out. For this reason, they said, much of the cottonseed research recently conducted by the Southern Utilization Research Branch and cooperating agencies has been aimed at learning the effect of various processing methods on the nutritive value of the meal.

The report goes on to say:

A survey of the prepress-solvent extraction processes normally used by 11 cooperating mills has been made to determine their effects on quality of oil and meal, measured chemically and by feeding tests; effects of time and temperature of storage on quality have also been studied.

Gossypol, a yellow pigment in cottonseed, detracts from the nutritive value of the meal when it occurs in the free state. During the mill survey, moisture content, temperature and time of cooking were all found to be significant variables which influenced the amount of free gossypol. It is noteworthy that 30-minute cooking at a moisture level of 12% and the relatively low temperature of 190° F. were quite effective in lowering free gossypol content, with minimum protein damage as measured by nitrogen solubility. The greatest reduction of free gossypol occurred during cooking. Oil recovery averaged 98%. Prepressed oils generally refined to a prime color, and were bleachable. Solvent-extracted oils were all higher in both refined and bleached color than the prepressed oils.

Feeding Tests

Samples of meals produced during the survey were used in chick-feeding tests to check the effectiveness of cottonseed meal as a source of protein. A meal prepared at the Southern Utilization Research Branch without heat, and containing only small amounts of gossypol, was the standard of comparison. Chick-feeding tests were conducted by Texas A&M College, the Bureau of Field Crops, California Department of Agriculture and the Louisiana Agricultural Experiment Station.

These agencies reported that none of the commercial meals gave as good results as did the standard, and that solubility of the meal in sodium hydroxide solution appeared to agree fairly well with results of feeding tests as an index of nutritive value. In the California trials, one group of chicks was fed soybean meal; four samples of the cottonseed meals gave better results, and three were almost as good. USDA tests at Beltsville, Md., using rats as subjects, showed the same general trend as the chick-feeding tests.

The animal and poultry husbandry research branch of USDA, Glendale, Ariz., and Beltsville, Md., in cooperation with the Southern Utilization Research Branch, has completed tests in which feeds containing known amounts of free gossypol were fed to laying hens. It was found that, in general, the lower the amount of free gossypol, the less discoloration showed up in the eggs. When eggs were placed in cold storage, discoloration increased with the length of the storage period.

As indicated in discussions of various nutrition experiments, a more reliable chemical test for nutritive value would be helpful. A research fellow placed at the Southern Utilization Research Branch by the National Cottonseed Products Assn. for cottonseed investigations has been working on methods for determining the amino acids content, and on the composition of isolated protein fractions of cottonseed meal.

Another phase of research has been exploration of the effect of time and temperature of meal storage on free and total gossypol. Storage for extended periods of time under ordinary commercial conditions appeared to have little or no effect on either free or total gossypol content, but storage of meal at somewhat higher temperatures appears to bring about considerable decrease in the free, and in many cases the total gossypol content.

Reprints of various reports on research may be obtained from the Southern Regional Research Laboratory, New Orleans.

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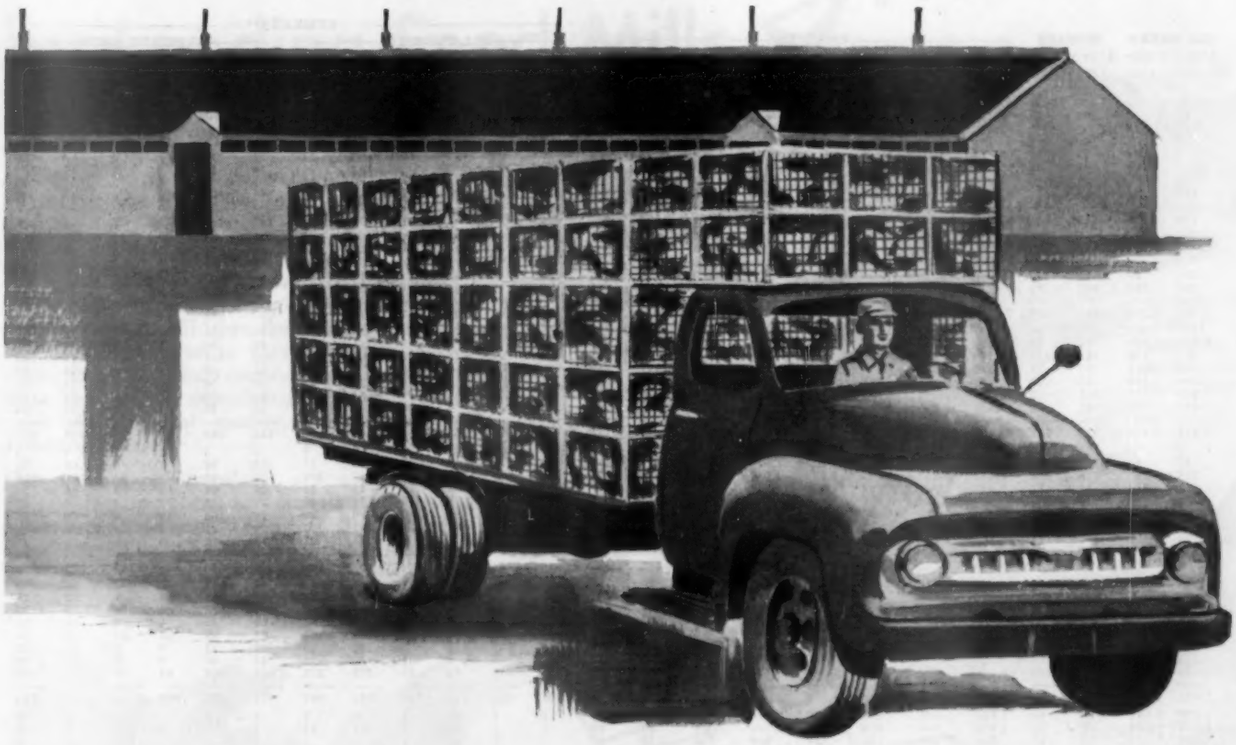

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U.S. Farm Animal Population by States

Note: Numbers of livestock and poultry on farms and ranches (livestock and poultry not on farms are excluded), Jan. 1, 1956 (000's omitted). Source: USDA.

State	ALL SHEEP AND LAMBS		HORSES AND MULES		CHICKENS						TURKEYS**											
					Total		Hens		Pullets		Oth. chickens*		ALL TURKEYS						BREEDER HENS			
													Heavy		Light		Total		Heavy		Light	
	1956		1956		1956		1956		1956		1956		1956		1956		1956		1956		1956	
Maine	32	36	13	12	3,851	3,890	781	758	2,978	3,038	92	94	9	11	12	6	21	17	8	10	8	5
New Hampshire	10	10	5	5	2,708	2,785	452	529	2,133	2,133	123	123	20	22	2	1	22	23	10	10	1	1
Vermont	12	13	10	14	1,118	1,131	206	200	881	899	31	32	11	9	1	..	13	9	6	5	..	..
Massachusetts	13	13	7	7	4,184	4,183	944	993	3,110	3,079	114	111	55	51	2	2	57	53	27	26	1	1
Rhode Island	2	2	1	1	473	472	117	122	347	337	14	13	5	4	..	..	5	4	2	2	..	..
Connecticut	9	9	5	5	3,840	3,871	1,137	1,114	2,611	2,663	92	94	30	22	3	5	33	27	11	10	1	2
New York	174	176	69	62	12,502	12,085	4,029	4,190	7,951	7,394	522	501	105	74	3	2	108	76	46	41	1	1
New Jersey	17	17	12	12	15,362	15,979	4,020	4,623	10,623	10,623	719	733	24	18	5	3	29	21	7	7	3	3
Pennsylvania	251	259	68	63	23,312	23,207	6,508	6,833	14,932	14,633	1,872	1,741	145	146	39	29	184	175	49	54	19	9
N. Atlantic	520	535	196	181	67,359	67,603	18,214	19,362	45,566	44,799	3,579	3,442	404	387	67	48	471	435	167	165	34	22
Ohio	1,257	1,247	81	73	14,740	14,298	3,928	4,517	10,313	9,382	499	499	132	150	60	61	192	211	100	116	39	40
Indiana	519	577	58	49	14,265	14,025	3,302	3,830	10,426	9,696	537	499	38	34	19	5	57	42	16	21	4	3
Illinois	717	708	85	71	18,553	18,187	4,411	5,293	13,644	12,416	498	478	53	54	7	6	60	60	27	30	4	3
Michigan	424	399	45	40	10,546	10,402	3,088	3,273	7,020	6,669	438	460	100	92	14	8	114	100	65	62	8	4
Wisconsin	386	260	102	94	13,714	13,578	4,588	4,726	8,704	8,443	422	409	72	67	18	14	90	81	49	56	7	6
E. N. Central	3,303	3,191	371	317	71,818	70,490	19,317	21,639	50,107	46,606	2,394	2,345	395	397	118	97	513	494	257	285	62	56
Minnesota	975	953	109	90	24,895	23,368	5,358	6,644	19,107	16,432	430	292	241	281	58	75	299	356	205	238	50	65
Iowa	1,326	1,247	98	88	29,123	27,717	5,316	6,645	23,130	20,354	677	718	135	145	6	9	141	154	86	96	4	4
Missouri	811	879	159	143	15,178	14,555	3,790	4,207	10,629	9,566	759	782	202	191	58	56	260	247	122	144	43	28
North Dakota	559	668	90	79	3,979	3,783	1,088	1,295	2,724	2,343	167	145	29	31	3	3	32	34	15	20	3	2
South Dakota	1,388	1,315	88	79	8,429	8,310	2,140	2,440	5,967	5,609	322	261	37	35	4	3	41	38	19	19	2	1
Nebraska	849	677	101	83	11,543	11,167	3,358	3,900	8,737	7,776	448	491	29	34	2	3	31	36	23	25	1	1
Kansas	634	594	91	80	10,828	10,463	2,853	3,194	7,436	6,767	540	502	56	53	6	6	62	59	38	36	4	2
W. N. Central	6,442	6,333	736	642	103,995	99,363	22,902	27,325	77,730	68,847	3,363	3,191	729	770	137	154	866	924	499	569	107	113
Delaware	4	4	4	3	863	853	261	300	569	523	33	30	7	7	2	2	9	9	3	3	1	1
Maryland	45	49	23	20	2,781	2,799	780	842	1,856	1,819	145	138	30	23	3	8	33	31	23	18	3	6
Virginia	327	347	128	120	6,484	5,767	1,948	1,792	4,069	3,499	467	476	80	76	168	152	248	228	57	60	98	98
West Virginia	311	314	62	58	2,903	2,823	1,094	1,138	1,654	1,555	155	130	36	31	32	40	68	71	20	13	15	24
North Carolina	51	53	248	236	12,389	12,523	4,361	4,492	6,640	6,574	1,388	1,457	57	55	7	10	64	65	37	38	3	3
South Carolina	5	8	119	113	4,223	3,870	1,606	1,478	2,192	2,082	425	310	74	74	16	6	90	80	59	63	12	4
Georgia	21	46	150	138	8,532	8,231	2,830	3,141	5,104	4,492	598	598	61	63	..	..	61	63	29	31	..	..
Florida	4	5	36	35	3,505	3,556	1,399	1,525	1,806	1,752	300	279	21	21	5	6	26	27	13	13	3	5
S. Atlantic	768	826	770	723	41,680	40,422	14,279	14,708	23,890	22,296	3,511	3,418	366	350	233	224	599	574	240	239	135	141
Kentucky	581	593	221	208	8,802	8,349	2,668	2,908	5,524	4,861	610	580	61	63	3	1	64	64	41	44	1	1
Tennessee	286	295	221	210	8,383	7,838	3,317	3,383	4,447	3,824	619	631	33	32	4	3	37	35	19	23	3	2
Alabama	55	110	174	160	6,372	6,149	2,551	2,653	3,348	3,047	473	449	28	28	12	12	40	40	20	22	9	10
Mississippi	91	97	255	242	5,767	5,608	2,483	2,512	2,725	2,534	559	562	47	52	5	5	52	57	28	32	4	4
Arkansas	58	67	135	125	4,706	4,576	1,631	1,832	2,598	2,338	427	406	45	59	49	59	94	118	23	25	23	31
Louisiana	115	110	152	135	3,649	3,514	1,192	1,240	1,848	1,766	609	518	34	35	3	4	37	39	20	22	2	3
Oklahoma	229	257	110	96	5,726	5,571	2,231	2,646	3,271	2,748	184	177	62	65	8	9	70	74	44	45	6	7
Texas	5,659	5,208	314	298	16,288	15,336	7,113	7,113	8,305	7,474	870	748	311	321	64	54	375	375	224	260	54	35
South Central	7,071	6,737	1,582	1,475	59,703	56,940	23,266	24,287	32,066	28,582	4,371	4,071	621	655	148	147	769	802	416	472	102	93
Montana	1,756	1,757	93	92	1,573	1,531	443	452	1,064	1,021	66	58	8	6	1	1	9	7	4	3	..	..
Idaho	1,125	1,085	57	54	1,730	1,685	416	478	1,260	1,159	54	48	9	9	2	2	11	11	3	3	1	1
Wyoming	2,036	2,128	53	53	508	488	185	185	310	270	13	13	6	6	..	1	6	7	3	3	..	..
Colorado	1,783	1,731	75	72	2,210	2,102	779	826	1,350	1,202	81	74	37	19	3	1	40	20	11	8	1	..
New Mexico	1,278	1,242	69	65	796	776	376	365	374	367	46	44	7	7	..	..	7	7	4	4	..	..
Arizona	477	470	62	60	665	647	259	251	346	339	60	57	10	14	..	1	10	15	5	5	..	..
Utah	1,481	1,472	38	37	2,335	2,234	904	1,012	1,328	1,129	103	93	39	41	16	7	55	48	20	20	14	6
Nevada	468	458	23	22	155	146	56	48	82	82	17	16	..	..	..	..	..	..	..	..	..	..
Washington	315	294	40	38	5,079	5,126	1,504	1,594	3,290	3,267	285	274	111	107	13	11	124	118	67	72	10	6
Oregon	847	830	50	48	3,679	3,623	1,126	1,198	2,387	2,244	172	181	247	253	31	31	278	289	187	214	23	17
California	2,012	2,020	84	78	27,423	29,063	7,356	7,797	16,069	16,068	3,998	5,197	1,103	1,124	56	47	1,159	1,171	596	653	44	38
Western	13,578	13,487	654	624	46,153	47,400	13,398	14,206	27,860	27,139	4,895	6,055	1,577	1,591	122	102	1,699	1,692	900	989	93	63
U. S.	31,582	31,109	4,309	3,962	390,708	382,218	111,376	121,527	257,219	238,169	22,113	22,522	4,092	4,130	825	772	4,917	4,892	2,479	2,719	533	493

*Does not include commercial broilers. **Does not include turkey fryers.

State	CATTLE AND CALVES (thousands)														HOGS AND PIGS (thousands)							
	All cattle and calves		KEPT FOR MILK						OTHER								Under six months		Six months and over			
			Cows and heifers 2 yrs. old and over		Heifers 1-2 years old		Heifer calves		Cows 2 years old & over		Heifers 1-2 years old		Calves		Steers 1 yr. old & over		Bulls 1 yr. old & over		Total		Sows and gilts		Others	
	1956		1956		1956		1956		1956		1956		1956		1956		1956		1956		1956		1956	
Maine	233	228	123	125	41	38	39	36	9	9	3	2	7	7	6	5	5	5	23	24	13	12	4	4
N. H.	118	118	71	73	20	18	19	18	2	3	1	1	3	2	1	1	2	2	13	13	8	8	2	2
Vermont	474	469	320	326	71	62	63	61	3	3	1	1	3	4	3	1	10	9	12	13	7	8	2	2
Mass.	188	180	126	123	26	24	24	22	2	2	2	2	2	2	2	2	4	3	152	160	79	77	17	16
R. I.	26	25	19	19	3	3	3	2	...	...	...	...	...	...	...	...	1	1	11	13	6	7	1	1
Conn.	181	177	120	120	25	23	26	24	3	2	1	1	2	2	2	2	4	4	23	26	13	13	3	3
N. Y.	2,311	2,288	1,497	1,512	350	321	327	319	30	35	6	6	31	30	32	29	38	36	145	167	97	103	23	24
N. J.	228	224	158	156	28	26	25	25	3	5	2	2	3	4	5	5	4	4	326	344	110	117	21	20
Pa.	1,935	1,896	1,029	1,039	277	248	265	256	35	32	42	38	57	47	147	155	33	31	584	642	385	425	86	88
N. Atl.	5,694	5,607	3,463	3,439	841	762	790	762	136	141	58	54	107	98	198	202	101	94	1,189	1,291	718	772	159	160
Ohio	2,369	2,416	939	930	235	213	230	227	234	232	99	104	364	394	230	280	38	36	2,578	2,836	1,985	2,210	412	435
Ind.	2,175	2,262	631	612	152	142	155	163	369	389	141	141	471	508	228	300	28	27	4,183	4,349	3,136	3,300	620	630
Ill.	3,911	4,028	875	866	250	230	285	298	641	616	215	225	913	934	681	810	51	49	5,668	6,291	3,571	4,089	1,037	1,027
Mich.	1,943	1,924	907	907	255	240	258	258	91	94	70	62	181	171	153	164	29	27	693	776	485	536	122	137
Wis.	4,341	4,384	2,578	2,604	661	646	662	662	87	99	56	66	93	96	139	146	65	65	1,727	1,831	1,053	1,200	395	366
E. N. C.	14,739	15,014	5,930	5,919	1,553	1,471	1,590	1,608	1,422	1,410	581	599	2,022	2,103	1,430	1,700	211	204	14,848	16,083	10,230	11,335	2,586	2,585
Minn.	3,939	4,018	1,527	1,558	446	442	457	450	303	303	157	164	604	615	382	426	53	60	3,531	3,637	1,770	1,866	704	640
Iowa	6,161	6,223	1,122	1,100	285	261	276	290	1,018	990	413	417	1,884	1,933	1,097	1,151	96	81	11,156	11,602	5,680	6,230	2,123	1,998
Mo.	3,910	4,027	955	936	291	191	216	214	1,056	1,034	217	210	862	888	324	476	79	78	3,130	3,819	2,100	2,635	520	596
N. Dak.	1,973	2,131	410	410	95	89	118	121	574	642	160	168	477	528	97	128	42	45	351	439	64	70	114	110
S. Dak.	3,301	3,367	332	335	82	77	120	117	1,255	1,320	282	246	911	915	247	283	72	74	1,437	1,494	390	431	395	335
Neb.	5,065	4,821	453	446	106	100	118	108	1,578	1,476	436	368	1,586	1,487	702	739	81	77	2,308	2,492	992	1,160	535	439
Kansas	4,341	4,298	535	530	117	117	125	112	1,402	1,318	322	300	1,376	1,332	399	524	65	65	815	929	522	619	147	143
W. N. C.	28,690	28,885	5,339	5,315	1,312	1,277	1,430	1,412	7,186	7,083	1,987	1,893	7,700	7,693	3,248	3,727	488	480	22,728	24,413	11,518	13,001	4,538	4,349
N. Cent.	43,429	43,899	11,269	11,234	2,865	2,748	3,020	3,020	8,608	8,493	2,568	2,492	9,722	9,801	4,678	5,427	699	684	37,576	40,496	21,748	24,336	7,124	6,834
Del.	70	68	37	36	9	8	9	9	3	3	1	1	3	3	2	2	2	2	37	40	24	25	5	5
Md.	540	529	256	251	63	54	57	53	55	57	22	20	26	34	39	48	12	12	206	225	144	156	32	33
Va.	1,382	1,396	450	436	92	88	101	103	353	349	83	77	174	190	103	128	26	25	658	675	432	445	96	92
W. Va.	593	593	211	209	42	36	38	39	130	134	38	37	81	82	44	47	9	9	142	170	84	120	21	23
N. C.	985	955	391	383	88	80	87	80	185	190	73	68	107	102	33	37	21	20	1,276	1,276	791	750	188	186
S. C.	646	633	175	168	40	38	43	46	170	178	66	63	100	96	32	34	20	20	510	581	322	357	68	75
Georgia	1,627	1,562	346	332	94	89	97	95	518	517	163	134	274	264	94	92	41	39	1,472	1,663	971	1,060	223	245
Florida	1,737	1,764	137	194	63	66	75	73	814	814	153	144	207	200	191	214	47	49	436	427	250	230	76	73
S. Atl.	7,580	7,490	2,063	2,009	491	459	507	498	2,233	2,246	599	539	931	971	538	602	178	176	4,737	5,060	3,028	3,143	763	731
Ky.	1,773	1,826	654	654	117	115	122	122	341	341	103	102	294	310	113	153	29	29	986	1,203	670	824	150	166
Tenn.	1,771	1,753	695	681	129	124	138	135	361	351	115	107	235	242	76	83	22	21	970	1,183	633	784	157	173
Ala.	1,835	1,798	409	397	125	117	144	140	642	655	136	113	253	264	95	83	31	29	947	1,042	624	691	135	150
Miss.	2,369	2,440	587	593	142	134	149	151	821	839	201	212	303	340	126	132	40	39	831	808	387	431	90	98
Ark.	1,556	1,587	405	359	87	89	113	113	485	498	113	94	245	277	73	96	31	31	426	567	250	300	70	98
La.	1,904	1,923	353	348	91	75	90	93	812	865	193	175	249	253	79	75	38	39	388	473	223	290	70	80
Okla.	3,277	3,244	460	436	105	93	140	132	1,300	1,302	239	235	765	756	200	240	59	59	373	463	266	332	70	76
Texas	9,501	9,586	884	849	187	189	221	210	3,944	3,950	586	567	1,938	2,004	502	602	230	215	982	1,100	648	735	140	140
S. Cent.	22,986	23,157	4,455	4,347	983	936	1,117	1,097	8,696	8,801	1,694	1,595	4,282	4,446	1,269	1,463	490	472	5,703	6,839	3,671	4,437	882	979
Mont.	2,395	2,515	108	106	24	25	34	34	1,106	1,132	247	269	721	754	105	141	50	54	112	141	65	80	23	23
Idaho	1,362	1,457	245	250	78	74	88	95	357	368	95	102	323	352	156	192	24	24	105	120	71	82	16	15
Wyo.	1,096	1,118	46	45	12	11	13	13	522	508	89	89	327	351	63	78	24	23	34	32	16	15	5	5
Colo.	2,054	2,075	168	165	43	45	55	53	752	770	236	232	524	521	229	243	47	46	181	195	103	115	25	25
N. Mex.	1,164	1,212	50	50	10	10	12	12	639	670	101	98	269	288	61	63	23	22	42	45	26	30	6	6
Ariz.	983	1,022	49	49	13	13	14	15	428	416	105	102	166	206	187	200	21	21	24	26	13	14	3	4
Utah	749	779	108	112	28	28	34	35	256	273	74	74	163	167	73	77	13	13	56	63	34	38	8	9
Nev.	591	597	17	17	7	8	9	10	300	297	61	60	135	140	49	52	13	13	17	19	8	11	3	3
Wash.	1,160	1,218	289	295	72	74	85	87	271	273	86	91	235	256	99	118	23	24	110	134	79	99	18	18
Oregon	1,486	1,456	235	219	61	59	72	65	496	505	138	119	339	328	114	139	34	32	127	157	61	108	22	25
Calif.	3,863	3,863	909	927	260	240	285	270	860	865	363	367	491	437	625	658	90	89	461	470	238	240	67	64
Western	16,903	17,312	2,222	2,235	606	587	679	689	5,986	6,077	1,595	1,623	3,693	3,790	1,761	1,950	361	361	1,269	1,402	741	832	195	196
U. S.	96,592	97,465	23,462	23,318	5,790	5,493	6,113	6,067	25,659	25,758	6,514	6,293	18,785	19,106	8,444	9,644	1,829	1,787	50,474	55,088	29,906	33,520	9,063	8,900

Recent Hammermill Shipments Show Acceptance of.. Jacobson QUALITY by Leading Feed Mills

All the hammermills pictured on this page have been shipped in the near past. We at Jacobson were particularly happy about them, because they were multiple orders destined for feed mills well-known throughout the industry.

We are no less proud of Jacobson grinding equipment produced for our other customers, large and small, all over the country. While Jacobson hammermills vary in design and construction to meet specific grinding problems, they are all manufactured to meet the rigid standards of quality so familiar to Jacobson users.

Our customers, therefore, are assured of dependable operation, low maintenance and power costs, and quality grinding, all of which are reflected on the profit side of the ledger.

COSBY-HODGES MILLING CO.
BIRMINGHAM, ALABAMA

One #144 Speedy Grinder, Two #8 Universal Hammermills, Two #6 Universals, and One #4 Universal. Total of 410 H.P.

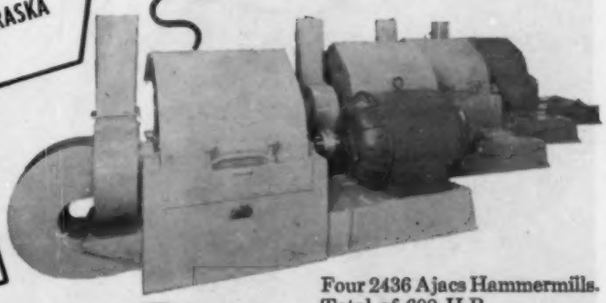
GENERAL MILLS, INC.
TOLEDO, OHIO

V. C. BRITTON CO.
FIREBAUGH, CALIFORNIA

Three #17 Ajacs Hammermills Total of 45 H.P.

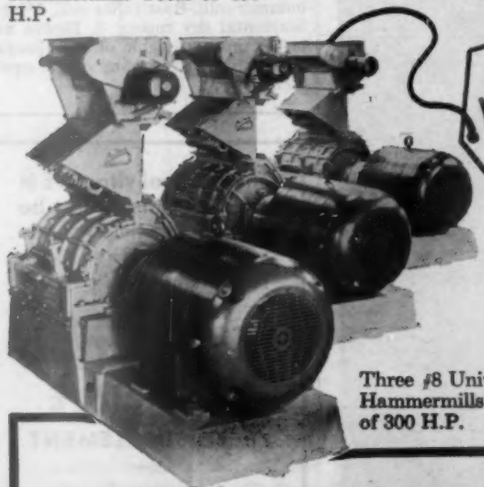
Two #2424 Ajacs Hammermills and One #10 Universal Hammermill. Total of 450 H.P.

MORRISON & QUIRK
HASTINGS, NEBRASKA



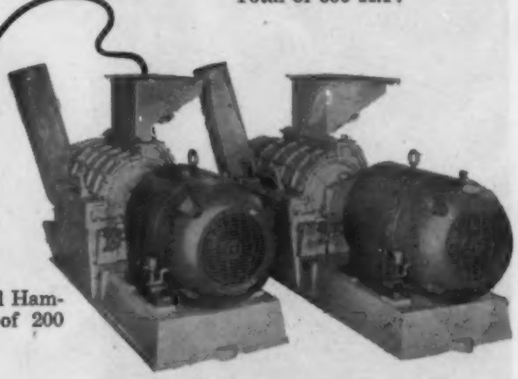
Four 2436 Ajacs Hammermills. Total of 600 H.P.

KELLOGG COMPANY
BATTLE CREEK, MICHIGAN



Three #8 Universal Hammermills Total of 300 H.P.

COOPERATIVE MILLS
SEAFORD, DELAWARE



Two #8 Universal Hammermills. Total of 200 H.P.

Other Recipients of Recent Jacobson Multiple Shipments:

AUBREY FEED MILLS
Louisville, Ky.

WENDLAND GRAIN CO.
Wendland, Texas

FARMERS UNION GRAIN TERMINAL ASSOCIATION
St. Paul, Minn.

ILLINOIS FARM SUPPLY CO.
Springfield, Ill.

NUTRENA MILLS, INC.
Peoria, Ill.

H. C. KNOKE CO.
Chicago, Ill.

FEEDSTUFFS PROCESSING CO., San Francisco, Calif.

RURAL CO-OP DRYING ASSOCIATION
Bird Island, Minn.

Your Jacobson Sales Engineer will be glad to tell you about Jacobson grinding equipment, and provide you with engineering and plant layout help.

Over 46 Years of Continuous Service to the Feed Industry

JACOBSON MACHINE WORKS

Manufacturers of UNIVERSAL, AJACS and MASTER Hammermills
1090 TENTH AVENUE S. E.—DEPT. M
MINNEAPOLIS 14, MINNESOTA

4 Named to New Posts With Hess & Clark

ASHLAND, OHIO—Four appointments to the sales and advertising staff of Dr. Hess & Clark, Inc., were announced recently at the company's sales and advertising plans meeting by Hermon A. High, president.

Two of the appointments are new positions created in the animal health division. Thomas L. Winemiller has been named merchandising director for animal health. Formerly advertising manager, Mr. Winemiller is charged with finding new and improved techniques for merchandising animal health products which the company produces. He will also coordinate the firm's accelerated product-development program.

To facilitate the execution of merchandising plans at the retail level, Wilbur Edison has been appointed to the newly-created post of regional field sales manager. Mr. Edison was formerly assistant manager of feed and agricultural sales for Cutler-Dickerson Co., Adrian, Mich.

Appointments in the company's advertising department were John W. James to sales promotion manager from assistant advertising manager, and Dr. Aaron L. Andrews as advertising manager.

Mr. James' new duties include coordinating the advertising activities of the feed products division which markets drugs for feed medication. Dr. Andrews was formerly director of marketing for the Anchor Serum Co. He will coordinate over-all advertising plans with sales objectives including public relations activities.

Mr. High said that the appointments are aimed at promoting progressive marketing plans for the company's animal health and feed medication products. As part of this move, the appointment of Klau-Van Pietersom-Dunlap, Inc., Milwaukee, as advertising and merchandising counsel, was announced recently. Eugene E. Copper and Charles F. Calkins have been named as account executives.

d-CON Co., Inc., Ups Sales Volume 66%

CHICAGO—Sales volume for the d-CON Co., Inc., was up 66.2% in 1955 over the preceding year, it is reported by Jerome S. Garland, president.

The d-CON company, now said to be the world's largest manufacturer of rat and mouse killers, was established January, 1951. d-CON's sales volume was over $3 million the first year in business.

During 1955, Clark Richards, formerly of the University of Wisconsin Alumni Research Foundation, was added to the research and educational staff of the d-CON company. Mr. Richards will devote his time keeping county agents and vo-ag teachers informed on the latest trends in rat and insecticide research.

Another personnel development was the election of Paul Cunningham as vice president in charge of merchandising.

Walter F. Wood, Jr.

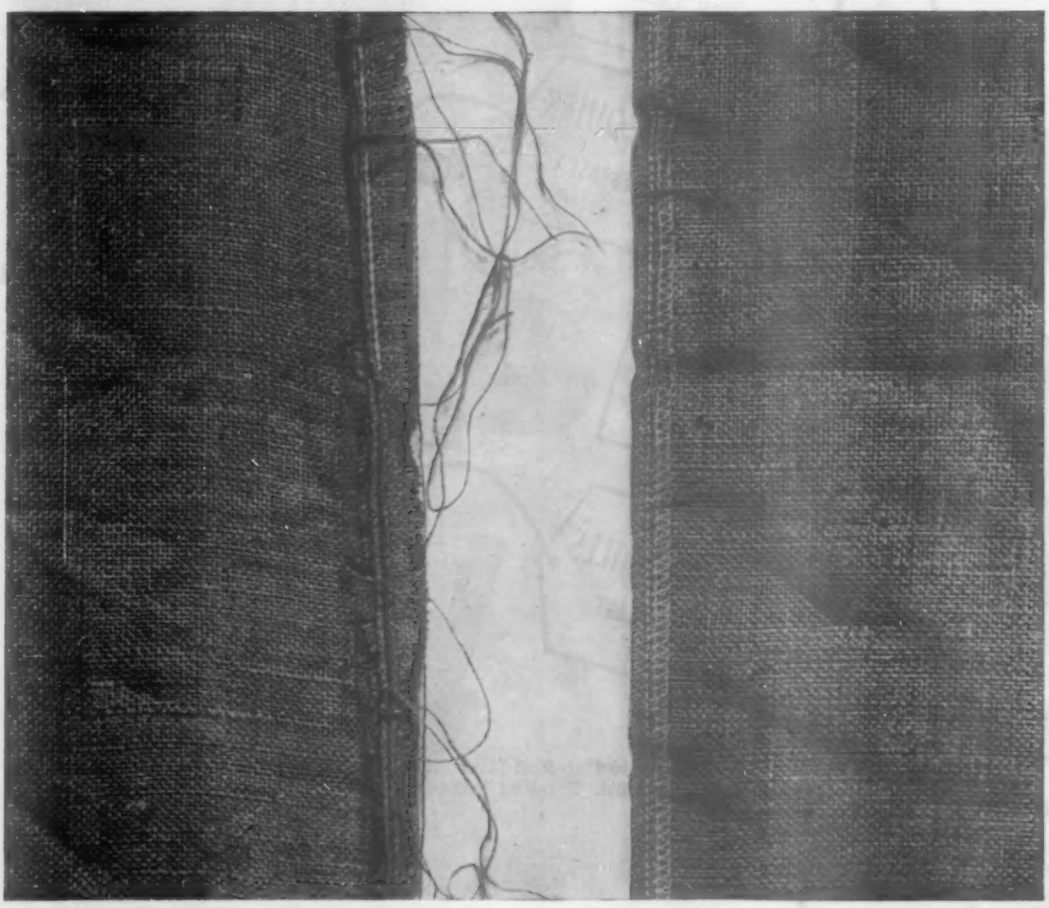
JOINS NICHOLS—Walter F. Wood, Jr., has accepted a position with the sales staff of Nichols Poultry Farm, Inc., Kingston, N.H. With the announcement of Mr. Wood's appointment, it was also announced that Mr. Wood's breeding farm and hatchery, Stonegate Chicks at Holliston, Mass., will be associated with Nichols to provide additional production facilities for Nichols No. 12 birds. A graduate of the University of Connecticut with an M.S. from Iowa State College, Mr. Wood at one time taught in Vermont and was with the Connecticut extension service. He set up the Stonegate Farm in 1930.

New Custom Mill

MENO. OKLA. — A new custom feed plant is now being constructed for the Farmers Co-operative Assn. at Meno. Ingredients are stored in overhead bins and weighed out in a weigh buggy for formulation of any standard or special formula. The mill layout was designed and equipment furnished by Ross Machine & Mill Supply, Inc., of Oklahoma City. Equipment includes a 100 h.p. Jacobson hammer mill, Ross roller mill, 1½-ton horizontal dry mixer, S. Howes molasses mixer, capable of bulk loading or sacking off from any of the equipment.

Package your feed in the new Bemis "Edge-Lock" Seam burlap bags

. . . you'll please—and WIN—customers!



With conventional burlap seams, the yarns fray like this when a bag has made several trips. Loose yarns may get into the feed and clog automatic feeder machinery. Such raveling necessarily limits the life of the bag.

With Bemis "Edge-Lock" burlap bags, there is no fraying, no loose yarns to clog the machinery. You can get many extra trips from each bag, thus reducing your bag cost. There is a big sales advantage in the neater bag, too.

Bemis "Edge-Lock"... the ravelproof seam ... is the most important improvement in burlap bag design in many years. *It's another Bemis first!* Begin right now to use this customer-pleasing package!

Bemis

General Offices—St. Louis 2, Missouri
Sales Offices in Principal Cities

The original vitamin E in feed ingredients may be gone by the time you mix your feeds. That's one reason why you should use

Myvamix
VITAMIN E
FEED SUPPLEMENT

Information and prices from
Distillation Products Industries, Rochester 3, N. Y.

Distillation Products Industries
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Billboards Catch the Eye

When Joe Brooks came back from an all day collecting trip that late winter day, he laid down checks totaling only $97 on Rusty Hagen's desk. Rusty expected Joe to be in a gloomy or discouraged mood, because this wasn't much money to collect on a day's trip. But Joe wasn't discouraged. In fact he seemed in pretty good humor.

"I've got lots of promises, Rusty," he said. "I think more checks will come in later in the month." And whistling he went off to Happy's Lunch for a cup of coffee.

At this moment, Milt Peters and Pop Henley came into the office. "Well," asked Milt, "did Joe haul in lots of green stuff?"

Rusty looked puzzled. "I can't figure it out. He brought back only $97, and yet he seemed cheerful. He went over to Happy's for coffee."

"Gee," said Milt worriedly, "only $97. Do you think we'll get paid Saturday? I hope so. I got a heavy date, and—"

"Huh, Joe has never missed a pay day in all the years he has been in business," interrupted Pop scornfully. "And I'll bet he won't miss one now. He has been through stuff like this before, when money is hard to collect. And as for your heavy dates, if you'd cut out some of them and save your money, you'd not worry if a pay day was skipped now and then."

"Oh, Pop," reprimanded Milt, "you wouldn't want to rob a young fellow of a little fun, would you?"

"Is there anything else besides fun in your life?" Pop asked sarcastically. "If you were in the feed business for yourself, I'll bet you wouldn't last even 13 days."

"I might surprise you," Milt said doggedly. "I can buckle down to work when I want to."

"I hope to live that long," Pop said gruffly and went back into the salesroom.

Milt looked worried. "Rusty, do you think the feed business is going all to hell? Are farmers losing money? Will they go bust, and will we go bust with them? Where would I get another job if this company goes bankrupt?"

"It's not going bankrupt, worry wart," put in Rusty with a grin. "Joe knows what he's doin'. He's just not whistling in the dark. This business is in sound condition. We haven't too much on the books. When Joe says the money is comin' in, it'll come, too. Every business has a rough period now and then. And with Joe and his ideas—you never know what'll happen."

At this moment the door opened and in came Joe again. He walked with quick steps to his desk, and there was a deep excitement flowing from him. "Fellows, I got a swell idea," he said, picking up his worn corncob, filling it and lighting it. "I had it this afternoon and that coffee at Happy's crystallized it for me. I'll tell you all about it."

"I'll stay as long as I can stand that pipe," Milt promised.

Joe's "Thinker" Is Working

Joe chuckled as he puffed on it. "It's my thinker," he said. "I can always work better when I smoke it. Let it smell. We can always open the windows."

Joe took a big sheet of paper and roughly sketched a billboard he had in mind. "This billboard will be the talkingest sign I ever had. Everyone will see it, because I'll place it right next to the highway."

"Every advertiser thinks his sign will be the best," Milt remarked. "You'll have to have a good one, Joe, to meet competition."

The brown haired feed dealer chuckled, took his corncob from his

Lilly

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mouth. "Boys," he said. "I'm getting a 50 ft. cedar pole from the telephone company and I'll put it up right near our fence at the road. This pole will be painted white, and it'll be anchored so that no wind will blow it down."

Milt nodded. He could visualize the pole all right.

"Then," continued Joe, "at the very top we will attach a wooden cutout of a big bag of feed. Copy on it will say 'Our Quality Feed Produces.' Then about 3 ft. below will be another wooden cutout of a milk pail with frothy milk at the top, and on that pail will be the word 'Milk'."

"Hm," said Pop. "I can see where that will be a very interesting sign. What else, Joe?"

"Another 3 ft. or so down will be a wooden cutout of a wire basket of eggs. Then will come a cutout of a big steer, labeled beef and down further another sign labeled 'Pork' showing a hog. The total copy on the sign will then read, 'Our Quality Feed Produces Milk, Eggs, Beef, Pork.' I might also add 'poultry products'."

Milt Peters grinned. "That will be quite a sign, Joe. Wooden cutouts of feed, etc., on a telephone pole. Nice for daytime."

Lighted at Night

"Daytime!" echoed Joe. "Why, that sign will be lighted at night, too. Each cutout will have a special light focusing attention on each bit of copy. And the sign will be double sided, so that motorists coming from both directions will be able to see it clearly, and from quite a distance. It will mark our feed store location night or day, for anybody who is looking for it, as well as for those who don't happen to be looking for it."

"I take back what I said before, Joe," put in Milt. "Your sign should compare favorably with the others. It'll be different and will get plus attention."

"That's right," chuckled Pop, "and it will be so big that when you come to work every morning, with your eyes almost glued shut from lack of sleep, you won't stumble right by our mill and turn in at the Acme Feed Co. a quarter mile down the road."

Milt looked quite angry. "Aw, I only did that once, Pop," he argued. "And it was snowing hard that day, too. Anybody could have made the same mistake."

NEW FEED STORE

BRINKLEY, ARK. — A new feed store has been opened here by F. P. Engler, a farmer who has operated the Engler caged hen and egg production business north of Wheatley for several years. The store will handle Larro Feeds.

In Test, Stress Changes Rats' Enzyme Activity

MADISON—Conditions that put an animal under stress also bring a rapid change in the activity of certain enzyme systems in the animal's body, according to Dr. J. N. Williams, Jr., and E. C. Moore, University of Wisconsin biochemists. So far the Wisconsin specialists have conducted only one complete stress experiment with laboratory rats, but the results shed some light on the activity of body-regulating enzymes under stress conditions.

To produce stress in the rats, they were allowed to swim for four minutes in water with a temperature of 41°. When the rats were taken out of the water, the activity of enzymes in various body organs was compared to enzyme activity in rats which had not been under this stress.

In general, the activity of several enzyme systems decreased considerably during the short time the animals were under stress. Some enzyme activities were unchanged, and only one increased, Dr. Williams and Mr. Moore report.

All tissues — especially the brain and heart—had lower enzymatic oxidation and decarboxylation, two enzyme reactions primarily involved in the transfer of energy within the body. The enzyme system that increased was one which acts upon an amino acid called tyrosine. Dr. Williams and W. H. White, Jr., another Wisconsin biochemist, also found that this enzyme system increased in activity under a deficiency of vitamin B_6.

The researchers think that the most important finding so far is that enzyme system activities can change rapidly under stress, and that the change doesn't affect all enzymes. The research is continuing, with different kinds of stress, longer periods for application of stress and other enzymes being studied.

LIMITED GILT FEEDING

ST. PAUL, MINN.—University of Minnesota studies of limited feeding of pregnant gilts show that the quantity of the ration can be cut down a good deal—and thus, of course, its cost cut. But quality of the cut-down ration must remain high and full of all the nutrients the animals are known to need.

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Burlap Bags as Used By the Feed Industry

By LACEY F. RICKEY

My knowledge of the use of bags is primarily derived from my contacts with the feed industry. I realize that bags—and burlap bags in particular — are used for packing many products besides feed, but I shall confine myself to a discussion of the use of bags in the feed trade.

The formula feed industry uses in the neighborhood of 600 million bags annually. And this does not include those used for by-product feeds that are fed as such or used for further manufacture such as millfeeds, oilseed meals, and animal by-product feeding materials.

This total includes both new and used bags made of burlap, cotton, paper, and in some cases rayon, kenaf or other fibers. It does not include the feed now handled and delivered in bulk by feed mills direct to the farmer.

Both bulk delivery and multiwall paper bags have recently been making inroads in the feed industry. Whether these newcomers have merely taken care of the growth in volume of manufactured feeds or have resulted in some decrease in the use of burlap and cotton bags for feed, I am not prepared to say.

A recent estimate that came to my attention gives the following distribution for the way feed is handled by U.S. mills:

Bulk	25%
Burlap and cotton	35%
Paper	40%

Personally I think this estimate is high for bulk and paper and correspondingly low for textile bags.

EDITOR'S NOTE: The accompanying article contains considerable information about how the formula feed industry uses bags. Costs of using different types of bag programs are compared and a number of pertinent problems considered. The author, Lacey F. Rickey, is with the farm supplies branch of the Farmer Cooperative Service, U.S. Department of Agriculture. The article is the text of a talk he gave at the recent convention of the National Burlap Bag Dealers Assn. in New York.

Comparing prices for different kinds of bags from 1940 to 1955 shows that prices for burlap bags have declined more than the others during the last couple of years, and this leaves them in a more comfortable competitive position.

Outside of the sharp bulge in cotton and burlap prices in 1947 and again in 1950, the noteworthy fact is the steadiness of prices for paper bags. Feed men like that for easily understood reasons, but I don't know of anything burlap folks can do to better the situation.

Bulk Feed

Quite a volume of so-called bulk feed is bagged at the mill, and the bags then emptied in the truck for bulk delivery to the farmers' feed bin. This would, of course, be 10-oz. burlap.

Many feed mills find it more efficient to handle part of their production in this way rather than to interrupt their packing lines to load a bulk truck, or to provide the facilities necessary for true bulk handling. One cooperative feed manufacturer handling feed in this way has put 15 bulk feed trucks into operation in little over a year and expects to add 25 more during the coming year, so you can see that this factor is not to be dismissed lightly.

I do not intend to under-rate bulk handling of feed. Its popularity continues to grow with many feeders whose operations are extensive enough, and who are properly equipped to handle feed in bulk. But there is this hybrid operation that is often left out of consideration.

Textile Bags

So let's get down to the consideration of textile bags for feed, with the emphasis on reconditioned bags. Cotton prints, including toweling and pillow case materials, are seldom reused for feed. They are made up with the idea that the farmer's wife will find other uses for these bags that

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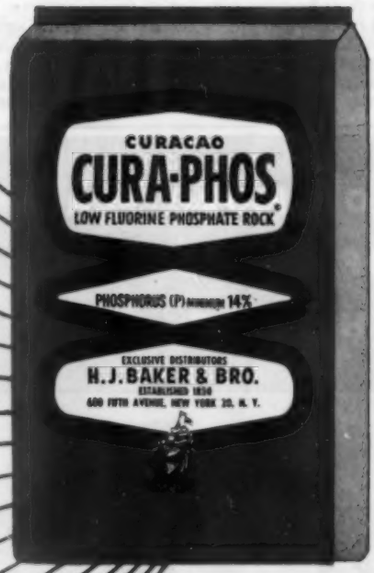

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will give her more value than their sale to the bag dealer.

Cotton sheeting is reused to a limited extent, but these bags will not take the repeated use that a good burlap bag will.

The cooperative feed manufacturers years ago saw the needless cost to the farmer of using the burlap bag as a one trip feed container. They largely pioneered the development of reconditioned bag programs. For this, they found 10 oz. burlap much more satisfactory than the lighter constructions.

In order to make these programs as attractive as possible, the usual procedure is to charge bags into the feed price as all new bags, and then allow the farmers as much as possible for their own branded bags returned in number one condition. This tends to keep their branded bags out of the general market and out of the hands of other feed mills, and also makes the bag-return program attractive to the feeder.

In order to retain as much control as possible over the bags carrying their brands, the co-op mills have in some cases resorted to retaining title under a leasing arrangement, but generally they accomplish this by buying them back only from bag dealers with whom they have contracts for assembling, cleaning, grading, reconditioning and sanitizing.

Sanitary Considerations

Now let's digress just a minute to consider this subject of sanitizing, sterilizing or whatever you want to call it. I am inclined to think that this whole subject has been overplayed.

We can't say that it is impossible to transmit disease through used bags. However, I have never heard of an authenticated case where this has happened, unless the outbreak of anthrax in the Middle West a few years ago through imported raw bone meal can be laid, in part at least, to the bags.

Feed manufacturers having wide distribution of feed in used bags have the experience of severe outbreaks of disease in one area while other areas using feed packed in the same bags will remain entirely clear. Likewise, those delivering part of their feed in bulk find the incidence of disease on farms using bulk feed about the same as those receiving feed in used bags.

Of course, this is not conclusive proof but it is at least enlightening. But the farmer will not take this as proof that disease can not be transmitted in feed bags.

Formerly, but I believe much less in recent years, when a farmer was confronted with an outbreak of disease, he was inclined to say, "It must have been in the feed." In order to forestall this, various methods of killing all organisms on used feed bags have been tried.

Fumigation with various chemical gases, with or without heat, has been the usual method. If the bags have been handled loose, this has been rather effective. But when the bags are baled before this fumigation, results have often been spotty and somewhat unreliable.

One method that has been found entirely effective, even with the spore forming organisms such as those that cause anthrax, is the dielectric heat treatment developed by Dr. W. R. Flach of Eastern States Farmers Exchange, working with General Electric Corp.

Eastern States treats 50,000 bags a day at a cost of less than half a cent a bag. This, I should explain, covers only the cost of sterilization. Assembly, cleaning, sorting and baling is done by the bag dealer. The bags are handled in bales of 250 tied with twine instead of wire as the high voltage current will melt any metal going through the oven. Heat throughout the bale builds up quickly to 220° to 240° F., and the bags are under the electrodes for 55 minutes.

An incidental advantage of these half bales is that cases of hernia have been much less frequent among the workmen in their bag department. The bags are handled by authorized dealers and come to Eastern States baled and ready for the electric oven. Carl Burwick has at his Worcester bag plant a set-up using the same principle for bag treating.

Reconditioned Bags

Now let's get back to the whys and wherefores of reused bag programs. The feed manufacturer uses them because they save money for the farmer. The feed mill can put more value into a bag of feed at the same net cost to the farmer than if it uses all new bags.

Of course, some of the claims made for this saving go beyond what they actually figure out to be. The cost for bags per ton of feed to the farmer seldom figures up to the difference in cost between 20 new bags and the allowance for 20 number one bags returned. There is always some loss or damage to the bags. Some are badly torn in handling, some are just worn thin, some are used by the farmer for oats, potatoes or maybe cabbage, and some are used to stuff into the broken window pane in the barn.

Feed mills operating a reconditioned bag program find that on the

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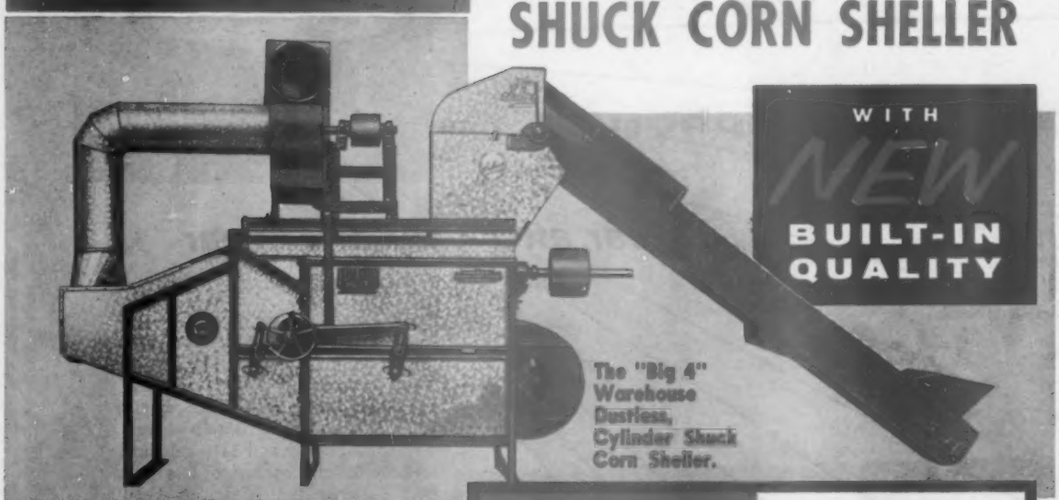

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average a 10 oz. burlap bag will make about five trips to the country. That means that along with reused bags, they will use about 20% new bags.

As stated before, mills operating under such a program usually charge bags into the price of feed at the new bag cost, and then allow the farmer for returned bags this same cost minus only the expenses of assembling and allowance paid the bag dealer for his services.

Comparative Costs

Let's see how this actually figures out. Without trying to bring prices down to date, I will use figures from my Circular No. 2 (Feed Bags—Kinds, Costs and Problems by Lacey F. Rickey, Farmer Cooperative Service, USDA, April, 1954) which I wrote in 1953. The end result is the same even though the figures will vary a little.

When all new bags are used, the costs to the mill will be about as follows:

	Per bag	Per ton
Printed, 10-oz. burlap 40" cut 47" delivered	$0.22	$4.40
Tags, twine, breakage	.015	.30
Total	$ .235	$4.70

Under a returned bag program, these costs became:

	Per bag	Per ton
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Processing	.02375	.475
Freight to mill	.00775	.155
Tags, etc.	.015	.30
Total	$ .2135	$4.27
Lower cost for used bags	$ .0215	$ .43

These are actual figures from a large mill for a six months period. They will vary from time to time and between mills differently located. The price of new bags changes frequently, but the allowance to the farmer for returned bags is adjusted only after this price has changed 2¢ or 3¢.

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A careful farmer who saves and returns nearly all his bags in number one condition can bring this cost down to where it approaches $1.40, or in other words, increase his saving to nearly $3 ton.

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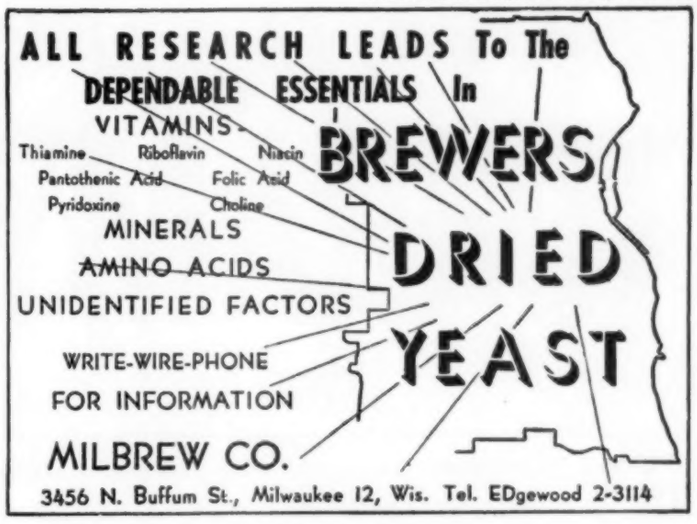
When the 50-lb. bag is first mentioned to the feed manufacturer, he throws up his hands in horror. He says the extra labor needed to pack and handle through the warehouse, two bags instead of one, would slow down production and cost him at least a dollar a ton more. Mills properly equipped to handle the smaller package find, after a shake-down period, that the extra cost for labor will run 25¢ a ton or less.

Research Needed

Now, I am going to stick my neck out. Nobody told me to say this, and



Thomas Phillips is a Big Name in small bags..

THE design and manufacture of smaller paper bags — from 2 to 50 lbs. capacities — has been a big part of the business of Thomas Phillips for 84 years. Single, duplex or multiwall . . . self-openers . . . flat or satchel bottoms . . . open mouth or valve . . . poly-coated or special paper . . . for flour, grain, fertilizers, insecticides, seed, paint, dog food — anything that can be bagged.

Thomas Phillips, too, is an integrated mill — from pulp to finished product — making much of our own special paper. Our composition rope kraft, or coated blue lined flour bag paper, is one of the softest and most porous available today. And, we maintain complete art, plate and printing departments to assure you the finest reproductions possible.

There is a difference in bags . . . and service after sale . . . so why not place a trial order with Thomas Phillips.

Remember, too, that Thomas Phillips is a leading producer of multiwall bags up to 100 lbs. capacity, and we will ship in mixed car lots to suit your production schedules.

THOMAS PHILLIPS COMPANY • AKRON, O.

will give her more value than their sale to the bag dealer.

Cotton sheeting is reused to a limited extent, but these bags will not take the repeated use that a good burlap bag will.

The cooperative feed manufacturers years ago saw the needless cost to the farmer of using the burlap bag as a one trip feed container. They largely pioneered the development of reconditioned bag programs. For this, they found 10 oz. burlap much more satisfactory than the lighter constructions.

In order to make these programs as attractive as possible, the usual procedure is to charge bags into the feed price as all new bags, and then allow the farmers as much as possible for their own branded bags returned in number one condition. This tends to keep their branded bags out of the general market and out of the hands of other feed mills, and also makes the bag-return program attractive to the feeder.

In order to retain as much control as possible over the bags carrying their brands, the co-op mills have in some cases resorted to retaining title under a leasing arrangement, but generally they accomplish this by buying them back only from bag dealers with whom they have contracts for assembling, cleaning, grading, reconditioning and sanitizing.

Sanitary Considerations

Now let's digress just a minute to consider this subject of sanitizing, sterilizing or whatever you want to call it. I am inclined to think that this whole subject has been overplayed.

We can't say that it is impossible to transmit disease through used bags. However, I have never heard of an authenticated case where this has happened, unless the outbreak of anthrax in the Middle West a few years ago through imported raw bone meal can be laid, in part at least, to the bags.

Feed manufacturers having wide distribution of feed in used bags have the experience of severe outbreaks of disease in one area while other areas using feed packed in the same bags will remain entirely clear. Likewise, those delivering part of their feed in bulk find the incidence of disease on farms using bulk feed about the same as those receiving feed in used bags.

Of course, this is not conclusive proof but it is at least enlightening. But the farmer will not take this as proof that disease can not be transmitted in feed bags.

Formerly, but I believe much less in recent years, when a farmer was confronted with an outbreak of disease, he was inclined to say, "It must have been in the feed." In order to forestall this, various methods of killing all organisms on used feed bags have been tried.

Fumigation with various chemical gases, with or without heat, has been the usual method. If the bags have been handled loose, this has been rather effective. But when the bags are baled before this fumigation, results have often been spotty and somewhat unreliable.

One method that has been found entirely effective, even with the spore forming organisms such as those that cause anthrax, is the dielectric heat treatment developed by Dr. W. R. Flach of Eastern States Farmers Exchange, working with General Electric Corp.

Eastern States treats 50,000 bags a day at a cost of less than half a cent a bag. This, I should explain, covers only the cost of sterilization. Assembly, cleaning, sorting and baling is done by the bag dealer. The bags are handled in bales of 250 tied with twine instead of wire as the high voltage current will melt any metal going through the oven. Heat throughout the bale builds up quickly to 220° to 240° F., and the bags are under the electrodes for 55 minutes.

An incidental advantage of these half bales is that cases of hernia have been much less frequent among the workmen in their bag department. The bags are handled by authorized dealers and come to Eastern States baled and ready for the electric oven. Carl Burwick has at his Worcester bag plant a set-up using the same principle for bag treating.

Reconditioned Bags

Now let's get back to the whys and wherefores of reused bag programs. The feed manufacturer uses them because they save money for the farmer. The feed mill can put more value into a bag of feed at the same net cost to the farmer than if it uses all new bags.

Of course, some of the claims made for this saving go beyond what they actually figure out to be. The cost for bags per ton of feed to the farmer seldom figures up to the difference in cost between 20 new bags and the allowance for 20 number one bags returned. There is always some loss or damage to the bags. Some are badly torn in handling, some are just worn thin, some are used by the farmer for oats, potatoes or maybe cabbage, and some are used to stuff into the broken window pane in the barn.

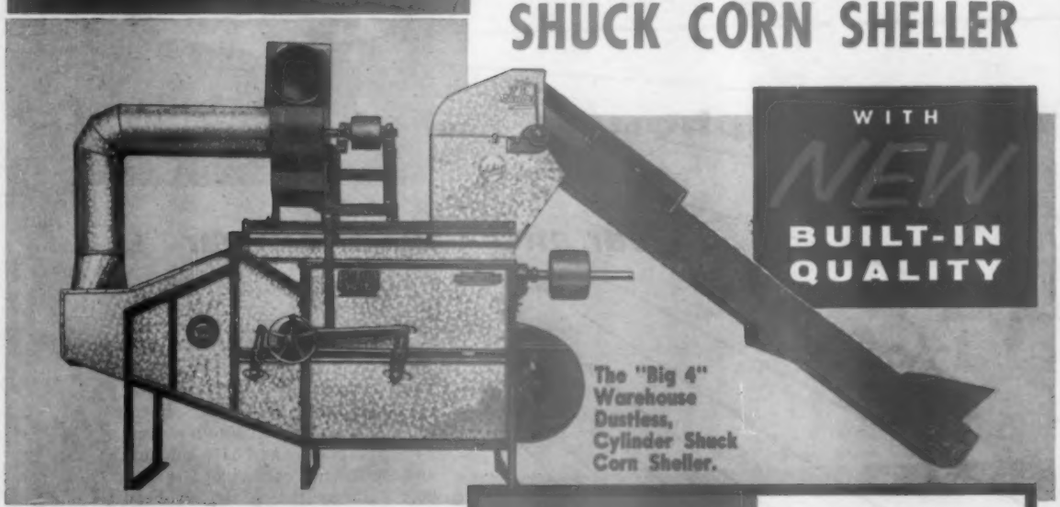
Feed mills operating a reconditioned bag program find that on the

FOR MORE YEARS OF BIG-VOLUME SHELLING

BELLE CITY BUILT

JOLIET CYLINDER SHUCK CORN SHELLER

WITH NEW BUILT-IN QUALITY



The "Big 4" Warehouse Dustless, Cylinder Shuck Corn Sheller.

A BUSINESS-GETTER FOR MILLS, ELEVATORS, WAREHOUSES

Introduced over a century ago, the Joliet has won an enviable reputation for fast, clean shelling, complete separation of corn, cobs, chaff and dirt, and years of trouble-free performance. For years now, the Joliet has been Belle City built . . . modern steel construction. Recent refinements make today's Joliet better than ever.

FAN—Sturdy, powerful, 6-blade roller-bearing fan on roller bearings assures powerful suction, and clean shelling.

FRAME—All steel, interlocked and electrically welded.

CAPACITY in snapped corn, 400 to 700 bushels per hour.

BETTER SHELLING CAGE CONSTRUCTION

The Joliet cage is specially designed with steel rings and steel rods . . . practically indestructible. Each individual beater is keyed on the shaft separately. A broken beater does not mean an entire new assembly.

GREATER SIEVE CAPACITY

Welded, all-steel construction permits sturdy, wide sieves, greater capacity. The upper sieve — a Clouz adjustable sieve, is for the cobs and husks . . . the lower sieve for shelled corn. Sieves driven by roller-bearing eccentrics.

BELLE CITY MANUFACTURING CO., INC.
Dept. FS-100, Racine, Wisconsin
Mail me complete information on Your Joliet Corn Sheller and name of distributor.
Name.....
Address.....
State.....
No. of Elevators.....Capacity.....

MAIL COUPON TODAY

We will mail you colorful folder, giving further details and specifications . . . and testimonials from users.

The Joliet — America's Foremost Corn Sheller

BELLE CITY BUILT

BELLE CITY MANUFACTURING CO., INC., Dept. FS-100, Racine, Wisconsin

NEW activated 100% Amburgo SUPERTRATE with UNIFAC®

UNIdentified FACtors concentrate

lets you pack
MORE GROWTH
MORE PRODUCTION
MORE REPRODUCTION
MORE VITAMINS
into your formula feeds

it's by Amburgo . . . naturally

The AMBURGO Company, Inc.
1315 Walnut St., Phila. 7, Pa.

"Snow-Flake" OYSTER SHELL

★

SEE OUR AD ON PAGE 33

average a 10 oz. burlap bag will make about five trips to the country. That means that along with reused bags, they will use about 20% new bags.

As stated before, mills operating under such a program usually charge bags into the price of feed at the new bag cost, and then allow the farmer for returned bags this same cost minus only the expenses of assembling and allowance paid the bag dealer for his services.

Comparative Costs

Let's see how this actually figures out. Without trying to bring prices down to date, I will use figures from my Circular No. 2 (Feed Bags—Kinds, Costs and Problems by Lacey F. Rickey, Farmer Cooperative Service, USDA, April, 1954) which I wrote in 1953. The end result is the same even though the figures will vary a little.

When all new bags are used, the costs to the mill will be about as follows:

	Per bag	Per ton
Printed, 10-oz. burlap 40" cut 47" delivered	$0.22	$4.40
Tags, twine, breakage	.015	.30
Total	$ .235	$4.70

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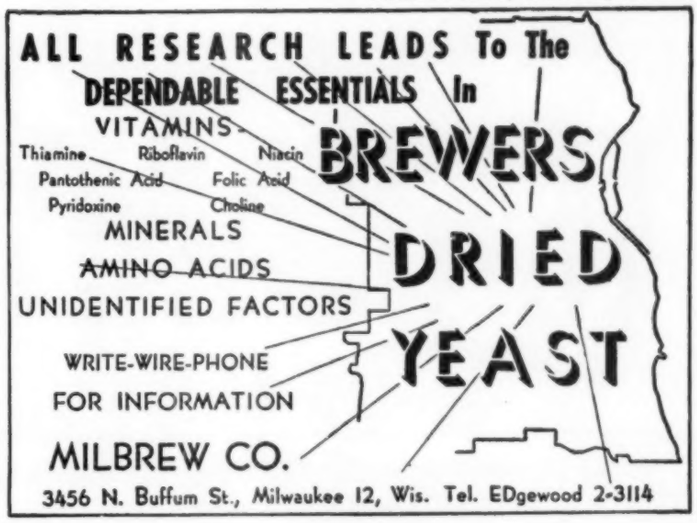

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THOMAS PHILLIPS COMPANY • AKRON, O.

A big new opportunity for feed manufacturer

TERRAMYCIN in CA

EFFECT OF TERRAMYCIN IN RATIONS FOR BEEF CATTLE

A summary of 17 trials conducted at leading universities and the Pfizer Agricultural Research Center

	Without Terramycin	Terramycin 50-150 mg/day
Growth		
No. Trials	17	17
Av. Daily Gain lb.	2.12	2.28
Increase %	—	8
Feed Efficiency		
No. Trials	15	15
Lb. Feed per Lb. Gain	12.41	11.56
Improvement in F. E. %	—	8
Carcass Quality		
No. Trials	10	10
Carcass Grade	9.27	9.32
Dressing %	60.3	60.8
Economics		
No. Trials	17	17
Cost per Lb. Gain ($)	0.231	0.219
No. Trials	13	13
Return Increased Dollar per Animal	—	3.44
No. Animals on Trial	1337	1337

Figures provide a sales story you can use. These are excerpts from representative tests. Note growth indices with Terramycin supplementation. Improvement in feed efficiency averages 8 percent with savings as high as 12 to 15 percent noted in several tests. Feed manufacturers can translate these into the kind of dollars-and-cents profit story that every feeder is anxious to hear.

This steer, a 1955 Illinois State Fair Champion, was grown on a Terramycin-fortified ration

Pfizer

Studies with antibiotics in ruminants have been carried on continuously here at the Pfizer Research and Development Center for the past 3 years. A wealth of data from these trials, and from a number of college stations and feedlots (involving over 2,500 cattle) clearly indicates the economic value of Terramycin at nutritional levels in virtually every type of practical feeding program now in use.

er's....

TTLE SUPPLEMENTS

(alone or in combination with Stilbestrol)

HERE ARE SIGNIFICANT RESULTS AND OBSERVATIONS FROM 17 TESTS, INVOLVING OVER 2,500 CATTLE

Terramycin improves both rate of gain and feed efficiency about 8%.

Terramycin increases net return after feed cost an average of $3.44 per head.

Carcass quality, dressing percentage as good or better than controls.

Improvement was consistent on both high- and low-roughage rations.

No difficulty in getting cattle on full feed.

Terramycin supplementation results in higher levels of health with better overall appearance.

Improvement with Terramycin is entirely independent of, and *in addition to* results with Stilbestrol.

With Terramycin, Stilbestrol feeders can get still faster, more efficient gains.

Answers to your questions based on solid scientific data now available can be provided by your Pfizer representative to help you get rolling on the big volume market opportunity now ripe for supplements containing:

Terramycin® *for* Beef

BRAND OF OXYTETRACYCLINE

Pfizer

Chas. Pfizer & Co., Inc.
World's largest producer of antibiotics
630 Flushing Ave., Brooklyn 6, N. Y.

425 N. Michigan Ave.
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1151 Chattahoochee Ave., N. W.
Atlanta 2, Georgia

7600 Ambassador Row
Dallas 7, Texas

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San Francisco 3, California

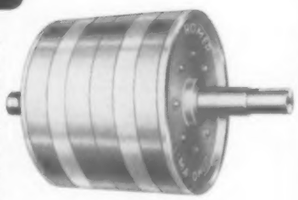
PERMANENT MAGNETIC EQUIPMENT

ASSURES PRODUCT QUALITY AND PURITY... HIGHER PROFITS...GREATER SAFETY

HOMER PERMANENT MAGNETIC PLATES

For use in processing and handling of grains, seeds, feeds and chemicals . . . to automatically and economically remove tramp iron. For use with chutes, belts and all other types of conveyors, Homer Permanent Magnetic Plates protect product quality . . . protect processing machinery . . . and prevent fires and explosions as a result of tramp iron contamination. Write today for Bulletin PL-250.

HOMER *HERCULES* AND *HERCULES* SUPREME PERMANENT MAGNETIC PULLEYS



Automatically remove tramp iron from belt conveyed materials in the handling and processing of grains, seeds, feeds and chemicals. Homer Permanent Magnetic Pulleys protect crushers, grinders, pulverizers and other process equipment. Non-electric and trouble-free—no loss of magnetic protection as result of power failures. Homer's "Radial Pole Design" assures highest magnetic strength across entire working face of pulley for deep, effective penetration and removal of damaging tramp iron. Write for Bulletin PY-260.

HOMER PERMANENT MAGNETIC DRUMS

For installation at discharge end of gravity, belt or screw conveying systems. Automatically remove tramp iron from feeds, seeds, grains and chemicals. Permanent and non-electric and trouble-free—Homer Magnetic Drums require no outside power source. As the burden passes over the drum, the powerful magnetic attraction of Homer's "Radial Pole Design" grabs tramp iron and holds it against the drum while the non-magnetic material falls free. The tramp iron is discharged from the drum as the drum revolves out of the magnetic field. Complete details in Bulletin MD-200. Write for it today.

FREE LABORATORY ANALYSIS

The Homer Manufacturing Co., Inc., will analyze your processing operation to determine the most effective method for supplying complete magnetic protection against tramp iron for your product and machinery. No obligation for consulting service.

The Finest in Permanent Magnetic Equipment . . . for the Grain Industry

THE HOMER MANUFACTURING CO., INC.
DEPT. 165 • LIMA, OHIO

I haven't checked into the matter very thoroughly. But it is my general impression that your industry is way behind in research. At least, I have seen little reference in trade papers or elsewhere to research work being done for the textile bag trade. There has been some promotion work but not research.

I would call your attention to this folder "How to Make Beautiful, Colorful, and Useful Articles from Ordinary Burlap Bags and Tintex Dyes." On reading it I find that the housewife can take a burlap bag, wash it, bleach it and dye it. By using 40¢ worth of bleach and dye and at least an hour's time, she can get a yard and a half of cloth she could buy at the store for 75¢. This is selling dye rather than bags. I am sure a cheaper and easier way could be worked out for using a dozen bags rather than one.

Carl Burwick developed a rotary turret bag cleaner for use in his plants. One girl places bags on the clamps. The machine counts them, cleans them, leaves them right side out, and lays them in a pile. I am sure this equipment would save lots of money at some other bag plants I have been in.

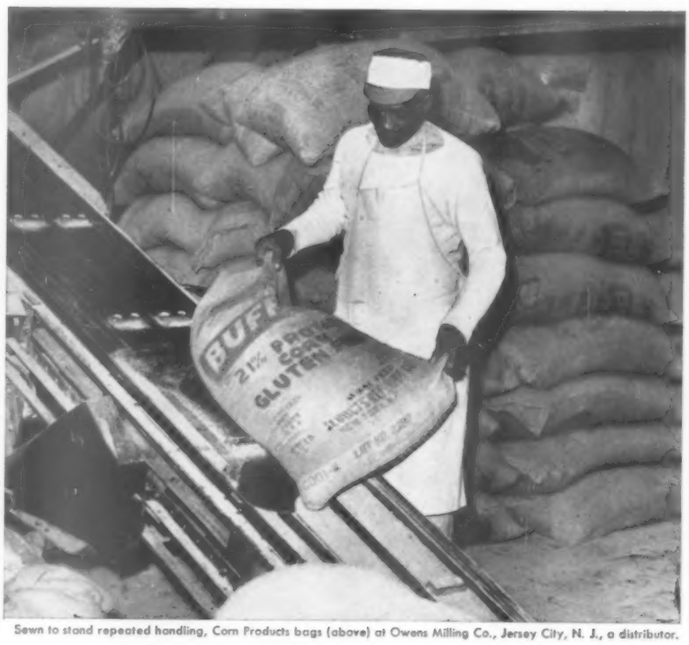
I mentioned before, the question of the transmission of disease by used feed bags. It would be worth thousands of dollars to you folks to know just how much fact and fancy there is in that idea.

Trade promotion and propaganda may be effective or ineffective. They are most likely to pay dividends when they have well grounded factual information to back them up.

I am not prepared to say where research work should start or in what direction it should go. I do not know the financial set-up of your association, or just how that end of it could best be handled. But I am confident that a small research organization—one or two men—turned loose on your problems would produce gratifying results.

CSC Sets Dividend

NEW YORK—A dividend of 25¢ per share was declared Feb. 27 on the outstanding common stock of Commercial Solvents Corp., payable March 30, 1956, to stockholders of record at the close of business on March 7, 1956. Previous payment was 25¢ per share on Dec. 28, 1955.



Sewn to stand repeated handling, Corn Products bags (above) at Owens Milling Co., Jersey City, N. J., a distributor.

Corn Products Refining Co. uses bags sewn with "Super Cordura" rayon for extra strength, low cost

REG. U. S. PAT. OFF.

From the first loading at Argo, Illinois, to the ultimate user, Corn Products Refining Company feed bags are handled many times, meet many tests of strength. Bags with bottom and side seams of "Super Cordura" withstand this rugged handling so well that Corn Products Refining Company has now changed to "Super Cordura" for their closing seam. It gives more strength . . . yet costs less than conventional thread—actually yielding 20% more yardage per pound.

In addition, Corn Products Refining Co. gets extra sewing efficiency with "Super Cordura." It has been treated with a special lubricant to insure good sewability. Its extra strength reduces breaks during sewing.

Consider the advantages of bags sewn with Du Pont "Super Cordura" the next time you place an order . . . and use "Super Cordura" in your own closing operations.

Advantages of "SUPER CORDURA" thread for bag sewing

- Lower cost
- Greater strength
- Improved sewability
- Reduced thread inventory
- Uniform properties

E. I. du Pont de Nemours & Co. (Inc.)
Textile Fibers Dept., Wilmington 98, Del.

**"Super Cordura" is Du Pont's registered trademark for its high tenacity rayon yarn.*

DU PONT
REG. U. S. PAT. OFF.
BETTER THINGS FOR BETTER LIVING
...THROUGH CHEMISTRY

DU PONT "Super Cordura"
HIGH TENACITY RAYON

Hog Raisers Challenged to Produce More Efficiently, Meet Competition

By ROGER BERGLUND
Feedstuffs Editorial Staff

AMES, IOWA—Hog producers were challenged recently to face up to the fact that they will have to become more efficient, and produce a better product more efficiently, or many of them will be forced out of business and the industry will continue to lose markets to competitive meats.

The challenge was issued by speakers who addressed more than 2,000 hog raisers at the Iowa Swine Producers Day Feb. 20 at Iowa State College.

The experts, from Iowa State College and outside the state, told of trends toward increased efficiency and specialization and they called for application of advances which have been and can be made in breeding, feeding, management and marketing.

(Also see earlier story on the event in the March 3 issue of Feedstuffs.)

Speakers pointed out, among other things, that hog producers are being squeezed by better consumer demand for and more efficient production of poultry and beef. The answer, they declared, lies not in government subsidies but mostly in improved operations and adoption of modern management techniques which can help bring profitable production of a quality product.

Much of the program was devoted to an analysis of what should and is likely to happen in the hog business, and feed men, as well as farmers, were interested in the discussions of problems and trends.

The chairman of the swine producers day program was Dr. Damon Catron of the Iowa State animal husbandry department. He also was one of the speakers, discussing life-cycle feeding and management.

ECONOMIC TRENDS — Setting the stage for the breeding, feeding and other discussions was Prof. Francis Kutish, Iowa State economist, who outlined economic trends affecting the hog business. He pointed up the fact that supplies and consumption of poultry and beef have been rising in recent years and will increase further this year, putting more of a squeeze on pork. The pork problem, he said, can be attributed in part to the type of hog which has been raised.

Referring to this season's low hog prices, he noted at the same time that the 1955 pig crop actually was not excessive, was no larger than in 1951. However, he said, the industry still has the problem of "bunched-up" marketings—there are still twice as many spring pigs as fall pigs; twice as many hogs go to market in December as in July.

The share of the consumer's dollar spent for pork has been declining, Prof. Kutish pointed out, while the beef share has held steady, partly because of consumer preference for beef in times of prosperity. In view of pork's decline relative to beef, he declared, the swine industry needs to take a good look at the type of hog being raised ,to produce less fat and more meat-type hogs.

Prof. Kutish also called attention to increased feed supplies, resulting partly from acreage restrictions on wheat and cotton, and lower feed prices, stimulating livestock production. A big problem, he said, is how to keep excess feed grain and livestock production from spilling over into competition with midwestern production.

Looking at this year's hog price prospects, Prof. Kutish said he could not be very optimistic, partly because of greater beef supplies. However, he pointed out, there won't be quite so much pork on the market next fall and the midwestern hog price should be a little better than last year. There won't be quite so much pressure on processing facilities, and distribution should be a little better. In the South, he said, prices won't be quite so good as last year because of more hogs.

What should producers do? They must do the best possible job of feeding, and they must be developing a hog that can hold its own against more beef and poultry.

MEAT-TYPE HOGS—Bernard Ebbing of the Rath Packing Co., Waterloo, Iowa, also put emphasis on the need for meat-type hogs. He described new pork products, new processing methods and merchandising efforts which have recently moved more meat than ever before. But to continue to move new pork products effectively, pork must have the "new look," with less fat.

Mr. Ebbing's conclusions for the swine raiser: (1) Spread out farrowings, giving a more uniform supply. (2) Use meat-type boars and produce meat-type hogs which will yield quality meat with eye appeal; market hogs at reasonable weights. (3) Control disease and feed efficiently.

Dean Floyd Andre of Iowa State, in welcoming producers to the college, had some similar advice. Higher protein diets for humans are being recommended, giving meat a boost. But, he noted, hogs have been losing out to other meat. For ex-

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ample, while beef supplies, as well as pork supplies, are up, the beef price is not down as much. So, Dean Andre repeated, the industry needs lighter, meatier-type hogs and more uniform marketing.

John C. Milton, American Meat Institute, Chicago, called attention to the great strides made in food merchandising, to the super market era, with fewer and bigger stores, more self-service and better, more scientific selling. The lesson to be drawn from his presentation was that a product would have to be of high quality and efficiently produced to maintain its position in this competitive, scientific selling. The market for food, he concluded, is a "40-ounce belly," and there won't be much room for meat if it's full of peanuts and beer, or what-have-you.

BREEDING—Getting into the breeding phase of the discussions, Dr. Ralph Durham of Iowa State told about "taking the guessing out of boar buying," which, he said, means taking the guessing out of boar production. In this connection, he explained some of the work at a boar testing station near the college which the college helps operate.

He declared that the industry can have 50% No. 1 hogs in five years if breeders and producers pitch in and aim for this goal. Performance as well as quality can be improved, he also said, for the fastest gaining pigs are also the meatiest.

A good program, Dr. Durham said, includes identifying individual pigs. Records are important, including litter records; a boar is only half the pig. He stressed the importance of measurements—measuring the ability to do well, determining quality through probing, etc.

He noted that testing associations are being developed in some local areas. Measuring—probing and weighing—is done, at a cost of 2½¢ per cwt.

If hogs are the right kind, he said, they can take a full feed and won't get too fat.

Dr. Durham, explaining the work at the boar testing station, told how boars are judged. He pointed out, among other things, that a boar shouldn't be over 1.2 in. in backfat thickness.

Breeding Fat Off

"Breeding Meat On and Fat Off" was the subject of remarks by Dr. L. N. Hazel of Iowa State. While producers have been urged to keep swine production in line with demand, Dr. Hazel commented at the outset that midwestern farmers can't stop producing hogs now. Other areas are looking for new enterprises and are producing more hogs.

Producing meat-type hogs hinges on the selection and breeding of proper breeding stock, Dr. Hazel pointed out. He emphasized that one of the important characteristics of a good meat-type boar is the ability to remain trim, even on full feed, and commercial breeders should test their stock by keeping them on full feed.

Animals with meat-type heredity will not become over-fat when full-fed up to market weight. Producers with good stock don't have to slow up gains to produce desired finish and conformation. Boars which tend to fatten under a full-feed test should be culled, Dr. Hazel said. If it becomes necessary to limit feeding or to feed a high percentage of oats to develop proper conformation, a boar can't be trusted to produce meaty type barrows, he pointed out.

Highly promising in selecting and developing meat-type boars, Dr. Hazel continued, is mechanical probing which can be used periodically to check level of back fat on live hogs. He also noted that successful producers of seed stock are finding it advisable to participate in certified meat-type programs sponsored by breed associations.

Dr. Hazel suggested that farmers sell pigs on rail grade and see how they are doing.

FEEDING AND MANAGEMENT—Dr. Catron, covering feeding and management, discussed the various factors affecting hog production: Breeding, where continued improvement is needed; nutrition—it's important but is not the only thing; housing and equipment, which have been overlooked too long; disease control, which has been neglected too much; capital—more is needed now; and marketing. The operator, through management, must coordinate all of these things if he is to remain in business and succeed in these times of increasing efficiency and specialization.

What are the differences between efficient and inefficient producers? Dr. Catron made these classifications:

The most efficient—have sufficient volume, practice smart management, apply new research, carry out multiple farrowing, feed balanced rations to meat-type hogs, have adequate housing and equipment, are stable operators.

The inefficient—practice poor management, are "in-and-outers" in the hog business, have only one or two litters a year, feed poorly, lack good housing and equipment, tolerate high disease and mortality, are lard producers.

Specialization

Looking into the future, Dr. Catron emphasizes a trend toward greater specialization. He sees three major specialized groups:

1. Scientific breeders—applying the science of animal breeding and progeny testing, they will produce the seed stock. Production-tested meat-type boars will sell higher.

2. Men with good managerial ability—they will have sows and produce baby pigs, using good housing and equipment and practicing multiple farrowing: (a) those with lots of pasture and limited grain will sell pigs at 25-100 lb. to feeders (the third group); (b) those with variable pasture and plenty of grain will raise and feed out their pigs.

3. Feeders—they will buy pigs to convert corn to pork; their facilities

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will be more limited; pigs will follow cattle.

Future Trends

Looking for more specialization, increased application of research findings and greater efficiency, Dr. Catron sees such things as these:

1. Scientific breeding and progeny testing.

2. Life cycle housing, management and feeding, with multiple farrowing—three phases of the management system: (a) pre-gestation and gestation, using portable equipment; in the summer, pasture for sows; in the winter, silage, hay, follow cattle, clean up corn; (b) farrowing-lactation and pig nursery, with permanent heated building; holding pens and farrowing stalls for sows, a pig nursery for pigs from early weaning to 50 lb.; (c) growing-finishing swine, with permanent or portable equipment—feeding and managing in 50-100 lb., 100-150 lb. and 150 lb. to market weight classes. This segregation into three stages from gestation to market helps eliminate spread of disease. (Involved in the foregoing are some of the following):

3. Controlled environment.
4. More use of drylot.
5. More forage for sows.
6. Multiple farrowing — the industry can't continue to have wide ups and downs in marketing.
7. Application of life-cycle feeding, with the best management and feeding from farrowing to 50 lb.; rations can be built for specific periods.
8. Early weaning.
9. Emphasis on feed efficiency—the current 4-4½ lb. of feed per pound of gain must be improved.
10. More use of complete feeds.
11. More bulk delivery of feed.
12. New slants on disease control.
13. Special rations for stress conditions.
14. Carcass grading.
15. Better methods of pork merchandising.

Nutrition Developments

Dr. Catron said recent nutrition discoveries awaiting more application include:

1. Silage for sows, properly supplemented—pig costs can be cut 30 to 50% at farrowing; bigger litters will result. A limiting factor for application is volume, or size of sow herd.

2. Early weaning—can bring various advantages, such as better doing pigs, fewer runts, no loss of weight for sows, more pigs saved, disease reduction, more multiple farrowing, etc. Limiting factors include housing, equipment, management, volume, "inertia." However, with better starting feeds, it's coming; it's not impractical; and when farmers have a little more cash in their pockets, they'll do it.

3. Least-cost ration principle for growing-fattening pigs—can result in $1.22 more profit per market hog based on 20-year period. Limiting factors include management, ability, education.

(For further details on "your future hog feed customers," see article by Dr. Catron in the Dec. 17 issue of Feedstuffs.)

Dr. Catron also discussed factors contributing to fat or lean carcasses, noting that such things as limited feeding, higher fiber rations, exercise and high protein can help bring leaner hog carcasses. However, he said, the best thing to do is to breed meat-type hogs and feed them balanced rations. The best formula for midwest farmers, he said, is the right meat-type hog with heavy muscling, plus full feeding an adequate balanced ration with adequate protein, plus confinement on pasture, plus marketing at lighter weights.

Meeting the Squeeze

The current income-cost squeeze for swine producers came in for attention from Prof. Herbert Howell of the Iowa State agricultural economics department. He noted the decline in income—income per $100 worth of feed averaged $148 in 1940-55; in 1955 it was $116—but he cautioned farmers not to try to reduce expenditures so much that they cut income more than costs.

Prof. Howell advised farmers to watch costs carefully, and keep records; to have the knowledge needed to do a good job; to develop judgment so that they can determine what would happen if a certain thing were

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done or not done; to use least-cost rations and maximize use of roughage; to give priority to factors that don't raise costs, such as sanitation; to be aware of increases in fixed costs, which are now a higher proportion of total costs; to watch alternative uses of capital and labor; to remember that there is more to fitting the hog business to farm resources than running numbers up and down; to put emphasis on management of the young animal.

Prof. Howell noted the great advances in nutrition and feeds, pointing out that it now takes about 56 lb. less feed to put on 100 lb. of gain than it did several years ago. At the same time he pointed out that modern, more complex feeds cost more and that the farmer should watch his feeding efficiency carefully. At one time farmers were advised to mix their own feed. This isn't practical or economical now, Prof. Howell said, but farmers should still buy and use feed in a way which will result in least costs.

COMPETITOR'S VIEWPOINT — The swine producers were a very interested audience as Leon Johnson of Orleans, Ind., giving "a competitor's viewpoint," recited the almost fantastic story of tremendous growth and improvement in efficiency of feeding and raising broilers. He noted that the broiler industry, like the hog business, has had and will have its ups and downs. But, he said, the answer is not government subsidization of over-production but continuation of free enterprise, which can bring the best results.

The broiler industry, Mr. Johnson said, has had less government interference than any phase of agriculture, and it has shown phenomenal growth and been "kind to efficient operators."

He listed reasons for the growth of the broiler industry and said that some of these points might be of real interest to hog raisers: (1) Broiler growing lends itself to mass production methods. (2) It provides fast turnover of capital. (3) It is the most efficient converter of feed to meat. (4) Keen competition among breeders has brought highly improved strains of meat chickens. (5) Efficiency of feeds has continually increased. (6) There has been phenomenal improvement in processing, distribution and merchandising of poultry meat.

Each phase of the broiler industry is highly specialized, Mr. Johnson, a broiler grower, pointed out.

Challenges to Hog Raisers

He went on to discuss various aspects of broiler growing and cite the points as challenges to hog men. For example, a broiler producer should produce at least 80,000 broilers or 240,000 to 250,000 lb. of live meat per man-work-year. Can the hog producer produce 1,100 to 1,200 head of 200 or 210-lb. hogs per man-work-year?

With mass production and fast turnover, a broiler man can operate with prices 2¢ above total cost of production and make a return of 20% on his capital investment.

The broiler industry, he continued, has given the consumer a product she wants and in the way she likes it. The hog industry can improve its position greatly by better breeding and production; it should look at its products through the eyes of the housewife.

The day is almost here, Mr. Johnson said, when one man can feed and care for 40,000 broilers efficiently, though this may not be average for some time. Birds will be marketed at eight weeks on 2 lb. of feed per pound of gain. One man will produce 200,000 broilers a year, the equivalent of 3,000 hogs per year per man.

Perhaps most important of all, Mr. Johnson said, is the fact that the broiler producer gets new research findings and improved production methods into use far quicker than the hog producer. There is more opportunity for improvement of hog profits in application of known scientific knowledge than in any government assistance program which might be devised, he declared.

Apply Similar Principles

Mr. Johnson discussed various principles, taken from rules of success in broiler production, which might apply to hog production. One principle is for the hog producer to classify himself in relation to the average. The above-average producer will wean 9 to 9½ pigs per litter and get to market with 8¾ to 9 pigs per litter in 5½ months on 350 to 375 lb. of feed per 100 lb. of gain. He will plan his production to market at most desirable periods, and he will be in business after the below-average man is through crying about losing money and drops out of business. There are no restrictions on getting efficient, Mr. Johnson said, and such an operator will make money over the years in spite of periodic low prices.

He also advised hog men to consider themselves as manufacturers and use quality materials, including pigs that are bred right and quality feeds, and put these materials together right through good management — sanitation, feeding, housing, etc.

How expensive is mortality? A broiler producer who has 10% mortality just doesn't stay in business. How a hog man with 30% mortality stays in business is a mystery, said Mr. Johnson. In the future, he said, any producer who has 30% mortality up to five weeks of age is doomed to failure because the efficient producer who saves 9½ pigs will force him out of business through competition.

Profitable hog production in the future, he continued, will require more consideration to volume of production as agriculture gets more and more into an era of specialization, with larger units of production.

Take Inventory of Position

No amount of government subsidies can solve hog industry problems, but will only complicate the problems, Mr. Johnson said. The challenge for the industry is to take inventory of its position in relation to other phases of agriculture and make improvements of its own through better bred hogs, better production techniques, better feeds and more efficient marketing.

"Save 9 to 9½ pigs per litter," he said, "save 100 lb. of feed you are

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now wasting for every 100 lb. of pork you are sending to market. Save 1½ months of time you are now using to get them ready for market. Adjust your operations to improved methods as they come along. You will make money in the hog business. . . . Your past position of producing the common man's meat has been challenged. Although I do not believe that broilers as such will ever replace pork at the dinner table in the foreseeable future, I do believe that broiler producers will continue to lead the way in efficient production, processing and distribution of meat for a long time and will be an ever present challenge to the hog producer to make like improvements."

AIMS FOR HOG MEN — Wilbur Plager, secretary of the Iowa Swine Producers Assn., Des Moines, offered 10 resolutions for hog men who want to beat the cost-price squeeze. His suggestions were:

1. Improve and use meat-type breeding stock—buy tested meat-type boars.
2. Follow a multiple farrowing program. The feast and famine supplies of hogs on the market help neither the processor nor the producer.
3. Make better use of silage for sows to save cost of feed in the gestation period.
4. Cut pig costs by saving more pigs per sow. The right kind of sow can raise more pigs per litter.
5. Don't cheat baby pigs. It pays to use the best feed and management, at least until the pigs weigh 60 to 75 lb.
6. Feed a properly balanced ration at all times to produce more lean and less fat in the carcass.
7. Control disease through better management.
8. Keep records and know your costs so you can detect mistakes promptly.
9. Sell hogs when they weigh 190 to 220 lb. so you can offer a product that has more consumer acceptance.
10. Eat and help sell your own product—pork.

MORE OPPORTUNITIES — Dr. Robert R. Spitzer, Murphy Products Co., Burlington, Wis., called on producers to prepare for expanded opportunities. Although farm profits are narrowing and prices have dropped, there are no tremendous surpluses of meat, milk and eggs, as contrasted with some grains, for example, and therein lies a note of optimism for the livestock farmer.

Americans are eating more protein-type foods, he noted, and population continues to grow. Increased efficiency, plus the American system, offers real opportunity for the American farmer, Dr. Spitzer said.

He went on to give a dramatic presentation on "The Greatest Story Never Told," the story of selling America and the American system as compared with Russia and communism.

PRODUCERS' VIEWS — What do some of the Iowa producers themselves think of the current and future hog situation? Some answers are provided in resolutions adopted in a short business session of the Iowa Swine Producers Assn. held during the program.

The producers:

1. Favored establishment of an aggressive promotional and research program financed by a mandatory check-off of 5¢ per head on hogs, with the funds to be used by the National Livestock and Meat Board and the National Swine Growers Council, working with colleges, farm organizations and the U.S. Department of Agriculture.
2. Opposed direct support of livestock; indicated that the simplest way to curtail livestock production is to curtail feed grains, which requires compliance by farmers and prevention of shifts of acreage into other feed grains.
3. Requested all meat packing firms to take steps to provide stimulation of production of meat-type hogs by making higher prices for such hogs available and effective and uniform; urged the packing industry to develop techniques of identifying and merchandising this quality product.
4. Urged expansion of the government pork buying program for immediate consumption; urged more emphasis in this program on the obtaining of quality products for school lunch programs.
5. Urged producers to keep production in line with demand.
6. Recommended expansion of marketing research.
7. Endorsed establishment of the boar testing station at Iowa State College.

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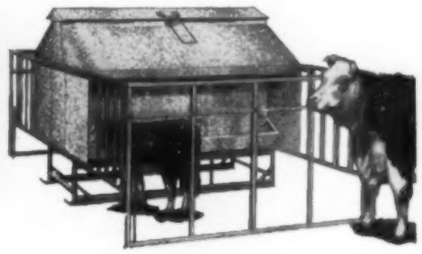

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Stockmen attending will hear about results of feeding tests being conducted this winter at Colorado A&M. The program will also include addresses by scientists who are recognized experts in the field of animal nutrition.

A&M lamb-feeding tests to be reported include self feeding pelleted rations to heavy lambs and the feeding of corn silage with various supplements to light weight lambs.

Results of cattle feeding studies will be reported from tests where hormones have been fed or implanted in fattening steers, and where fattening steers have been fed a high corn silage, limited grain ration. A&M scientists will also explain results of their tests of feeding fresh-cut alfalfa compared with grazing and feeding cured alfalfa hay.

Eshelman Improves Ohio Elevator Facilities

WASHINGTON COURT HOUSE, OHIO—Extensive improvements have been completed at the elevator of Eshelman Feeds, Inc., in Washington Court House.

Included in the improvements, the company said, have been new building capacity and a new custom feed mixing plant with modern facilities. The new building, 60 ft. high, is located to permit automatic conveying of grain from storage tanks to the new grinding and mixing facilities.

To mark the completion of the new facilities, an open house and barbecue were held, with some 650 guests on hand.

In commenting on the improvements, Melvin Kiger, Eshelman Feeds, Inc., manager, noted that the name of Eshelman in the feed and grain industry dates back to 1842, when the first John Eshelman opened a mill for grinding and making feeds in Lancaster County, Pa. In 1939, John W. Eshelman & Sons purchased the Lloyd Elevator in Washington Court House. This elevator was built by C. E. Lloyd in 1908.

Alfalfa Plant at Winnipeg Planned

WINNIPEG — The Landby Dehydrating Co., Warroad, Minn., will set up an alfalfa dehydrating plant in the Winnipeg area early this coming summer.

A. J. Landby, manager of the firm, and Morris Taylor, director, recently spent time here making initial plans for setting up the plant with officials of the Industrial Development Board of Greater Winnipeg.

Canadian capital and U.S. equipment and know-how will construct the plant, according to officials of the development board.

When in operation, the single-unit plant will produce 1,700 tons of dehydrated alfalfa meal annually. Company officials said their double-unit plant in Warroad produces 3,500 tons a year.

NEW ELEVATOR PLANNED

COLO, IOWA—Clayton Hopkins, manager of the Farmer's Grain Co. here, has announced that a contract has been let for the construction of a 253,000-bu. elevator. It is planned to have the structure completed by July 1.

A. C. ROBERTS DIES

MEMPHIS, TENN. — Albert C. Roberts, who owned the Robert Hay & Grain Co. here before his retirement, died recently. He was 86.

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Feed Industry, Farm Problems Discussed at Colorado Meeting

DENVER, COLO.—Otis P. Sherrill, Ralston Purina Co., Denver, was elected president of the Colorado Grain, Milling & Feed Dealers Assn. at the 13th annual convention held at the Shirley-Savoy Hotel Feb. 19-21. He succeeds Tom Wark, Wark Milling Co., Cortez. Les Grandbouche, Hayden Grain Co., Hayden, was elected vice president, succeeding Mr. Sherrill.

Members reelected as directors for a three-year term are Harold Webster, Des Marteau Commission Co., Lamar; J. S. Parker, Farmers Union Co-op Elevator Co., Wray; B. H. Achenbach, B. H. Achenbach Grain Co., Julesburg, and Mr. Grandbouche.

Also elected to the board of directors was Howard Stehwien, the Monte Vista (Colo.) Flour Mills Co. Mr. Stehwien replaces Henry E. Lague, retired manager of the Monte Vista Flour Mills, who was made an honorary director of the organization. R. B. Kelley, Denver, was reappointed executive secretary.

Allan B. Kline, former president of the American Farm Bureau Federation, speaking at the president's luncheon on Feb. 20, told conventiongoers he felt the Eisenhower administration's soil bank makes good sense. He denounced high support prices on farm products. Mr. Kline stated, "We have people foolish enough to want to continue the programs by which we have accumulated surpluses. How silly can they get?"

Mr. Kline said, "The net income of the U.S. farmers is off 20%, but per capita income is higher than in 1948 or 1949. As of 1954, the last full year for which figures are available, per capita income was $907 compared with $970 in 1950, the all time high year. Of course that isn't satisfactory, but it hasn't gone down as far as net income because there are fewer people on the farms and there is a lot of off-the-farm income being earned by farmers."

Increased efficiency in farming has lowered per unit costs, he added. He declared surpluses are the basic problem of agriculture.

Feed Merchandising

Tom Dyer, sales manager of Sargent & Co., Des Moines, spoke on feed merchandising. He described merchandising as a personal effort supplemented by mechanical or artificial aids. He likened merchandising to a platform supported by four legs —display, advertising, service and selling, each of which is necessary to do a good merchandising job.

Mr. Dyer stated he thought display was the most neglected of the four segments of merchandising and cited the supermarket as a prime example of the value of display in selling. Display, he said, if attractively done will greatly aid any feed dealer in increasing his sales. The old feed store is going the way of the old time grocery store.

To those dealers who say they can't afford to advertise, Mr. Dyer's answer is "you can't afford not to advertise." How you should advertise is largely an individual problem to be

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determined by your scope of operations — your territory — and many other things, he said, but more than anything else—consistency should be considered. Business goes where it is invited.

Service, according to Mr. Dyer, is essential and is becoming more and more a thing expected of the feed dealer. Every dealer should know enough about the problems of feeding to intelligently advise what to feed and how to feed. He added, there is plenty of material available to keep informed.

Also he urged the feed dealer not to wait until the farmer comes into the store, but to visit his farm and show an interest in his operation. "If you don't make these visits someone else will—and get the business."

Sell the Advantages

As far as the selling phase of the operation is concerned, Mr. Dyer told the group to sell more milk, larger and healthier litters, stepped up egg production—not the bag of feed. Confidence in yourself is of utmost importance when selling he said, and confidence in your industry and product are also important.

He cautioned the audience to keep in mind when talking to a prospective customer that a sale will be made—either you sell him on your idea that he needs what you have for sale or he sells you on the idea he doesn't. But to make your sale you must know more about your product than the customer and be able to help him with his problem. People, he said, want to buy, but they must be sold.

Dr. R. M. Bethke, vice president and director of research for the Ralston Purina Co. spoke on "the use of drugs and chemicals in the feed industry." Dr. Bethke stated that the problems of feed manufacturing 30 years ago were comparatively simple according to present practices and standards. At that time comparatively few ingredients were used in a formula and then in large amounts.

The list of vitamins, trace minerals, antibiotics, hormones, urea and other drugs and chemicals have complicated the feed manufacturing business although it has greatly increased the efficiency of feeds today, he pointed out.

Problems More Complex

Dr. Bethke said compliance with Food & Drug Administration rules, state regulations, proper formulation, etc., make today's problems more complex. While some of the products or additives do not present major problems in formulation, toxicity or production, they must be handled to bring the greatest return for money spent.

Coccidiostats present more problems than antibiotics, he said. With these products, problems of toxicty, contamination of other feeds and compatibility of the drug or chemical with other feed additives need to be considered. The use of the same facilities bring about the problem of contamination because not all animals tolerate drugs equally. He cited the example of a feed manufacturer who had to pay for a number of expensive dogs killed by a coccidiostat which found its way into dog food, because its manufacturer using the same facilities followed that of a poultry feed containing a coccidiostat.

In assessing the value and use of a drug or chemical Dr. Bethke noted the manufacturer should consider the following questions: Does the product have a practical economic value? What its safe level of use is? Does it interfere with feed intake? Is the product compatible with other ingredients or nutrients? Does it present any mixing problem? Could it present any hazard or danger in the hands of the customer? Is the product a hazard in the feed plant, might it cause other feed contamination problems? And are there accurate methods for determining the product in feed?

Calls Farm Program Good

Edmund E. Pendleton, assistant to the assistant secretary of agriculture, Washington, told the group the administration's farm program can cut farm costs, reduce surpluses and balance production with needs.

The soil bank plan, he explained, would remove 20 to 25 million acres from present allotments by voluntary agreement with farmers. The farmer would get payment in surplus commodities or cash in the amount equal to the value of goods he would have produced on the banked acres.

The second phase would be a long range conservation program aimed at putting about 25 million acres in forage, trees or water storage. The combined costs of the soil bank program would be about $1.75 billion in the next three years. He predicted the plan would remove surpluses at the rate of up to $1 billion a year.

Each farmer, he said, today is producing enough to provide for himself and 18 more people—in 1940 he produced enough for only 10 more. He added, the $8.7 billion worth of surplus commodities now held by the government are holding prices as much as 10% below what they could be. He also said that despite efforts to get rid of surpluses "for each bushel equivalent sold, 1½ bushels have flowed into Commodity Credit Corp. stocks."

Warns Against Contaminated Grain

Ralph Horst, chief of the Denver district office of the Food & Drug Administration, warned the group against accepting or moving contaminated grain. He cited the example of a carload of wheat seized in Denver recently which cost the shipper over $1,500 in losses incurred after FDA action.

George Hopfenbeck, senior vice president of the Colorado Milling & Elevator Co., Denver, cautioned the feed and grain men against becoming lax in the credit and collection phase of their business.

Allen Funk, price support specialist with the Colorado State ASC Committee, with Donald Smith and Carl Heaton from the Kansas City Commodity Stabilization Service office, covered the activities of CSS and ASC and outlined the plans formulated to this point.

The convention opened on Feb. 19 with a buffet-smoker sponsored by the Denver Feed & Grain Club. Over 100 ladies enjoyed a dinner the evening of Feb. 19, courtesy of Evans Grain Co., Salina, Kansas, and Industrial Molasses Co., Colorado Springs. A fashion show followed the dinner.

Representatives of about 25 grain and feed organizations were honored at the annual president's luncheon.

A cocktail party, courtesy of Simpson, Laybourn, Miller & Stark on the final evening was followed by the annual dinner-dance. Royal Crystal Salt Co. provided orchid corsages for the women and the orchestra and floor show were furnished by Colorado Milling & Elevator Co.

Convention cochairmen were Del Ellis, Colorado Milling & Elevator Co. and Otis Sherrill. About 325 registered for the convention.

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Use of Barley in Rations Discussed at Oregon Meeting

CORVALLIS, ORE.—Bulging barley supplies—the largest holdings on record—and current progress on use of hormone substances in livestock feed shared the spotlight at the 14th annual Oregon Animal Industry Conference, Feb. 9-10, at Oregon State College.

Nearly 200 commercial feed manufacturers and dealers attended the conference, sponsored by the college and the Oregon Feed & Seed Dealers Assn.

BARLEY IN FEED—Oregon animal nutritionists focused attention on local barley supplies as corn replacers in swine and poultry rations following a local 25% price drop in barley in the past two years. Diversion of wheat acres to barley production under the government wheat quota program has doubled the state's annual production over the previous 10-year average.

This shift in the Oregon feed picture is bringing a break, at least temporarily, in two historical ties with the Corn Belt: (1) Oregon imports two thirds of its pork supplies from the Midwest, and (2) some 80,000 tons of Midwest corn come into Oregon annually, primarily for poultry feed. Midwest corn in carload lots is currently priced above $60 a ton in Portland—at least $15 higher than local barley prices.

Comparing Feed Values

Sparked by this barley-corn price spread, OSC researchers gave conference reports on recent research comparing feed values of the two grains. G. H. Arscott, poultry husbandman, has found that barley can replace half the corn in a broiler ration when 3% stabilized animal fat is added. Growth and feed efficiency are as good, Dr. Arscott said, as from an all-corn ration without fat added. Without the added animal fat, only one fourth of the ground corn could be replaced with barley.

The researcher cautioned on one point when barley is used to replace corn. In every case where barley comprised more than one half the ground grain in the ration, he found that litter moisture was a problem. This problem increased as the level of barley in the ration was raised.

Cost-wise, Dr. Arscott figured that barley is a good buy for broiler rations whenever corn costs $15 a ton more than barley. This holds true, he explained, when corn is between $45 and $75 a ton and stabilized animal fat is selling for 7 to 11¢ lb. When stabilized animal fat is priced at 6¢ lb., a $10 difference between corn and barley would make barley a good buy.

Another OSC poultry researcher reported similar results in feeding turkey poults through their first eight weeks. J. A. Harper has found that barley can replace up to two thirds of the corn in a 27% protein starter ration when 4% stabilized animal fat is added.

Barley in Swine Rations

Dr. J. E. Oldfield, OSC animal nutritionist, also reported that barley is effective as the major grain source in swine rations. Tests show that maximum efficiency of barley feed is reached with addition of good quality protein, antibiotics and animal fats.

Barley, like all cereal grains, does not contain the quantity nor the quality of protein required for maximum growth in hogs, Dr. Oldfield stated. By supplementing barley with peanut oil meal, growth rates of 1.54 lb. daily were made in OSC tests. But when the quality of protein was improved with addition of 0.3% DL-methionine—one of the essential amino acids deficient in peanut meal—rate of gain increased to 1.79 lb. daily. Addition of a complete animal protein, tankage, to the barley ration gave gains of 1.90 lb. daily, Dr. Oldfield said.

Although barley is normally low, percentage-wise, in protein, it may contribute much of the needed protein when fed in large amounts. Dr. Oldfield stated that it thus becomes important to feed mixers to know whether they are using barley containing high or low levels of protein. He cited a study where high protein barley (15.2% crude protein) supplied 90% of the total protein requirement in the diet; while low protein barley (9.1% crude protein) supplied only 62% of the total requirement.

Barley samples submitted to the OSC experiment station ranged in crude protein content from 7.8 to 11.5%. Dr. Oldfield said it is quite possible that a high protein barley, heavily fertilized with nitrogen to boost protein content, might be produced that could be used in prepara-

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tion of complete mixed rations for growing hogs.

Recent OSC trials to test effectiveness of adding antibiotics to basic barley rations showed marked increase in rate of gain from Aureomycin and some increase from penicillin. Dr. Oldfield said results were similar to the widely practiced use of antibiotics in corn rations for swine.

In the OSC tests, 10 milligrams of Aureomycin HCL per pound of feed gave average daily gains of 1.99 lb.; and 10 milligrams of procaine penicillin per pound of feed gave daily gains of 1.67 lb. The basic barley ration of slightly under 15% crude protein gave daily gains of 1.48 lb. when no antibiotic was added.

USE OF HORMONE SUBSTANCES — Addition of hormone substances to livestock rations has posed many new problems in the feed manufacturing business, reported Dr. F. N. Andrews, professor of animal husbandry at Purdue University, Lafayette, Ind. Research to determine right amounts of hormone materials is complicated by differences in hormonal activity of natural feedstuffs. Certain legume pastures, silage and hay have been found to give hormone-like stimulation to animals.

Dr. Andrews said that in implantation of stilbestrol, scientists have pretty much settled on implantation of 30 mg. of diethylstilbestrol per steer as the most practical level for maximum beef gains with minimum side effects. Dr. Andrews said that this treatment is about the same in results as feeding 10 mg. diethylstilbestrol per steer per day—maximum permitted by the Food & Drug Administration.

Current studies at Purdue show that at least two other estrogens (or female hormones) — dienestrol and hexestrol—have about the same oral effectiveness as stilbestrol, Dr. Andrews said. The scientist also reported on studies in which growth stimulation and feed efficiency of diethylstilbestrol have been further improved by also adding certain antibiotics of the tetracycline type to the ration.

Grade of Carcasses

Dr. Andrews emphasized recent recommendations that hormone-treated beef cattle and sheep should be fed to actual degree of desired finish without respect to live weight. "It seems reasonably clear," he stated, "that we cannot expect any yet known hormone treatments to improve carcass grade in cattle and sheep."

Hormonal supplementation can be expected to give cattle and sheep a finish comparable to that of conventionally fed animals only if the feeder follows proper feeding practices and markets animals when the live grades indicate the desired degree of finish, he said.

The Food & Drug Administration now approves use of hormone materials only for beef cattle and poultry with the exception of a specific estrogen-progesterone pellet implantation for sheep.

While implanted sex hormones will increase rate of gain and feed efficiency in lambs, Dr. Andrews warned that they may produce many different side effects, particularly when given in excessive dosages. He cited cases of over-stimulation of the reproductive system which caused excessive straining and difficulty in urination. Dosages of less than 12 mg. of diethylstilbestrol per lamb gave good results in Purdue experiments.

Although the FDA does not yet permit oral feeding of hormone substances to sheep, preliminary work showed that 3 mg. of diethylstilbestrol per day, alone or in combination with Terramycin, improved both growth rate and feed efficiency in lambs, Dr. Andrews said.

Dr. Andrews also reported Purdue trials in which 2 mg. of dienestrol per lamb per day improved feed efficiency and 4 mg. per day improved both feed efficiency and rate of gain.

Hormones for Swine

Estrogen treatment of growing swine has failed to improve growth or feed efficiency and has consistently produced such undesirable side effects as genital and mammary stimulation, Dr. Andrews stated.

Swine feeding of methyl testosterone, a male-type hormone, is in the experimental stage with practical application still obscure. Purdue feeding tests gave some percentage increase in the more valuable lean cuts such as hams, loins, picnics and Boston butts. Correspondingly, there was some decrease in the less desirable fat cuts such as bellies, jowls and fat backs. Dr. Andrews reported that analysis of the entire edible carcass showed 5% more protein and 5% less fat in pigs treated with methyl testosterone than in untreated animals. He pointed out, however, that higher levels of methyl testosterone reduced rate of gain.

The Midwest researcher reviewed

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briefly the practice among poultry broiler producers of using trademarked diethylstilbestrol pellets and paste preparations. Primary benefits, he said, are a distinct improvement in carcass quality due to increased fattening. Since rate of gain and feed efficiency of broilers are usually not improved, Dr. Andrews said, hormone treatment is not profitable unless growers receive a premium for hormonized birds.

In the past year, use of dienestrol diacetate in poultry feed has been cleared with the Food & Drug Administration. The common level of feeding this estrogen, Dr. Andrews said, is at the rate of 32 mg. per pound of feed for the last three weeks before dressing.

Dr. Andrews warned feed handlers that both estrogens and androgens are extremely potent with more varied effects on the organism than any materials yet encountered in the trade. The concentrated forms in oil solution are extremely dangerous and are absorbed appreciably if spilled on the skin.

In summary, Dr. Andrews stated that research indicates that treatment of cattle with estrogenic substances such as diethylstilbestrol, hexestrol and dienestrol gives the following results: (1) Increases rate of gain and improves feed efficiency. (2) Does not improve carcass grade or increase fat deposition. Increased teat length is the most apparent side effect. (3) Depresses the functions of the ovaries and testes and should not be used in breeding animals except under professional guidance. (4) Fecal droppings of cattle fed estrogenic substances contain increased hormonal activity. Hogs following cattle fed female-hormone-like substances may show mammary and genital stimulation.

MILK REPLACERS—Cost savings for Grade A dairymen through feeding milk replacers in place of whole milk to calves held for herd replacement were reported by Dr. T. H. Blosser of the Washington State College dairy department.

Ninety-day feeding trials at WSC showed that calves made satisfactory gains with milk replacers comprised of 70% or more dried milk products. In addition to the replacer on the whole milk, test calves received up to 4 lb. daily of pelleted 20% protein calf starter ration and free choice chopped alfalfa.

Although calves on whole milk averaged about 10% higher daily gains, this "vealing" carries no advantage for herd replacement calves, Dr. Blosser pointed out. Only slight differences in height and heart girth gains were noted.

Holstein calves on whole milk averaged 1.74 lb. daily gain for the 90-day trial compared to 1.58 lb. for the milk replacer. Although Jersey and Guernsey calves made smaller gains, the 10% spread between the two rations was comparable.

The WSC trials also tested effectiveness of adding Aureomycin to milk replacer rations. Holstein calves receiving the antibiotic averaged daily gains of 1.80 lb. for the 90-day test period compared to gains of 1.52 lb. for those receiving no antibiotic.

With whole milk selling for $6 cwt. and milk replacers costing 18½¢ lb., the three-months trial showed a feed cost saving of $15.90 a calf in favor of the replacer. With whole milk priced at $3 cwt., the savings per calf would be $2.90 with milk replacers.

KETOSIS IN CATTLE—Dr. Blosser also said that feed manufacturers may be able to supply reasonably priced concentrate mixes containing preventive agents for ketosis (acetonemia) in dairy cattle.

This metabolic disturbance causes animals to decline rapidly in milk production and body weight. Since the disorder is marked by inability of the lactating cow to make proper use of carbohydrates, she draws on body fat and produces excessive amounts of ketone bodies: acetone, acetoacetic acid, and beta-hydroxybutyric acid. Excessive quantities of these compounds are then found in the milk, urine and blood. Normal blood sugar declines.

Prevention or early treatment of the disorder is extremely important, said Dr. Blosser, since afflicted cows seldom come back to previous levels of milk production even after complete recovery.

The researcher cited Cornell studies in which a special diet of sodium propionate mixed with grain lowered blood ketones, increased blood sugar, and increased milk production for a six-weeks' test period following calving. The propionate was pelleted in the grain mix at 2½% level. Ten pounds of the special mix supplied a daily level of ¼ lb. of sodium propionate. Cows received enough additional grain to meet requirements for milk production.

A calcium lactate drench showed promise for ketosis treatment in Maryland studies reported by Dr. Blosser. Fourteen of 16 treated cows showed improvement in blood sugar levels and in milk production following a 2-lb. dosage the first day and 1 lb. per day for the next seven or eight days.

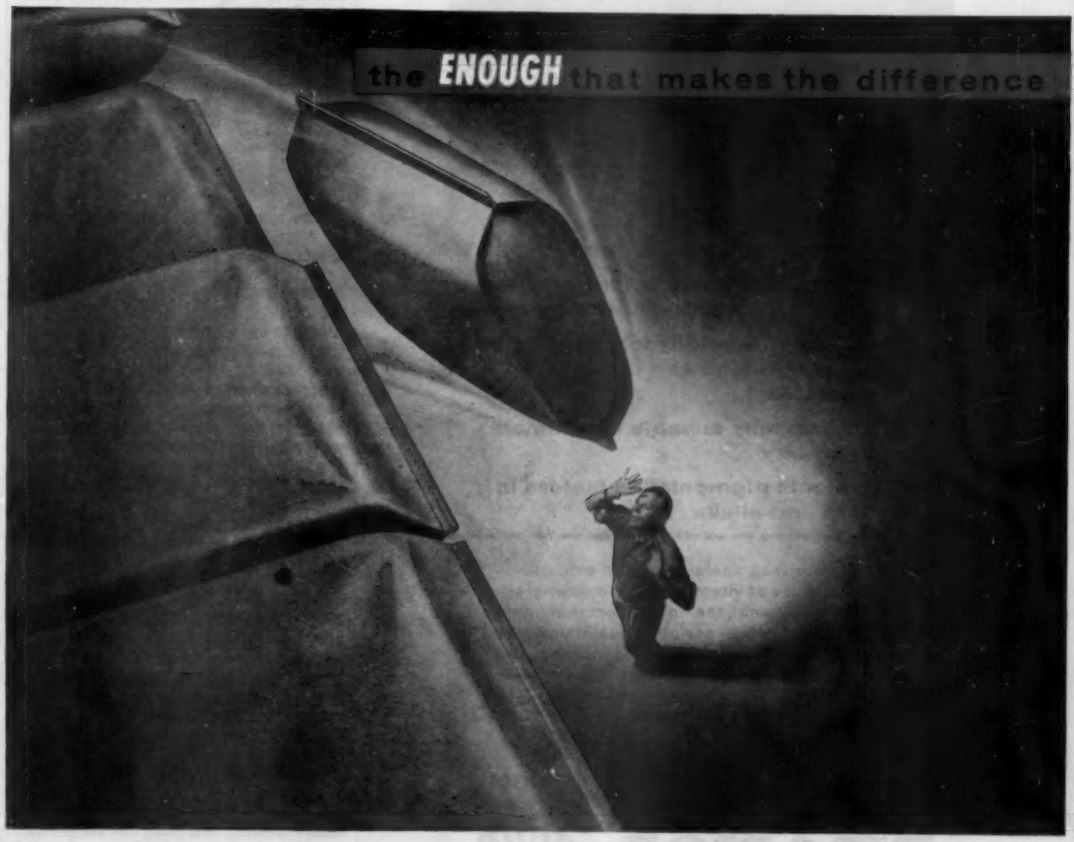
Calcium lactate was palatable when compressed into tablets and fed up to 20% levels in the grain mix, Dr. Blosser said. Other successful treatments in combatting the disorder include use of cobalt sulfate and feeding of high protein rations.

Dr. R. A. Bankowski, University of California, speaking on poultry disease control, said that a poultryman, in applying new vaccines for inducing immunity without endangering his operation or those around him, must have some understanding of the principles involved and nature of the products used. He went on to discuss various types of vaccines.

Dr. G. B. Wood, agricultural economist at Oregon State, said that the proposed soil bank program might halt the decline in farm prices but that nothing more can be expected from it. He expressed doubt that the program would help much in raising prices, but he said he felt the program was a step in the right direction.

Various other speakers from Oregon State also were on the program. Among them were Dr. I. R. Jones, Dr. Warren F. Brannon, H. P. Ewalt and Dr. P. H. Weswig.

Fred West, Van Waters & Rogers, Inc., was chairman of a question panel made up of some of the speakers.



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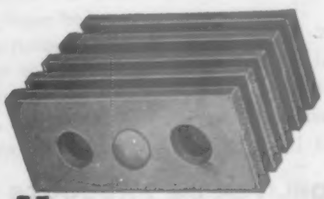

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Cage Layer Management

Advantages and Disadvantages and Factors to Consider in This System of Managing Layers

By Dr. H. L. Wilcke

Ralston Purina Co.

EDITOR'S NOTE: As interest in specialization and commercial-type operations has increased in recent years, increased attention has been paid to the cage layer system of egg production. In this article, Dr. H. L. Wilcke, assistant director of research for the Ralston Purina Co., St. Louis, briefly describes the present system and then discusses the various advantages and disadvantages of the cage system. He also presents data and comments on such things as culling practices (noting that culling should not be too severe), effect of body weight on production efficiency, effects of temperature, and shell quality. Dr. Wilcke says he is sure the cage laying system can be used in colder as well as warmer climates, but the extent to which it will be used in colder climates is a matter of economics. This article was prepared by Dr. Wilcke on the basis of a talk given at the Kansas Formula Feed Conference.

The system of keeping laying hens in cages is not a new one. Similar systems have been used on our own farm as well as in many of our experiment stations for many years.

However, the system that we are using today differs in many respects from the battery management which was used in the '30s. That was the system wherein birds were kept in cages but the cages were arranged in batteries four or five decks high with waterers in the center, feeders on the outside of each cage and two of those back to back. Underneath the cages there were rolls of belting to catch the droppings and it was necessary to clean these every day. Sometimes they were cleaned more than once a day. That system came into quite common use during the early 1930's, but today we see very few, if any, operations of any size where battery management is used. I believe there are two reasons for that:

1. The labor cost is very high. It was difficult to keep the belts which caught the droppings in working order, and it was difficult to keep them cleaned properly. This took too many manhours.

2. The problem of ventilation and temperature. We had a somewhat different problem then than we do today because these batteries were, you might say, enclosed. There was a belt above and a belt below, which prevented any air movement except laterally through the cages.

I recall a personal experience I had in handling some of these where we used a forced air heating system. When we got the temperature too low, all of the birds that were in the path of the moving air seemed to develop colds and keep them continually. When we raised the temperature to 65 to 70°, the birds that were in the path of the air moulted continuously. This question of temperature and ventilation was never adequately solved.

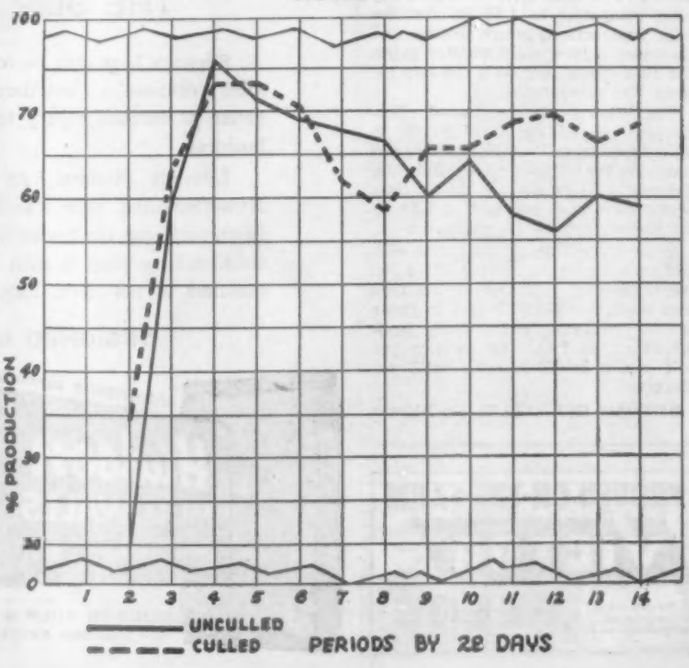
Today's System

The system we are talking about today is the system wherein the birds are kept in small cages, usually 10"x16", and up to the present time, most of these have been kept in single decks. This allows for free movement of air from all sides. They may be placed in two rows back to back, but even so, there is freedom of air movement.

The first knowledge that I had of

Dr. H. L. Wilcke

FIGURE 1



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DRIED WHEY

in broiler feeds steps up profits 1½¢ to 8¢ per bird; improves feed conversion

TREATMENT	AVE. 10 WK. WT (LBS.)	FEED GAIN
None	2.25	3.14
3% Molasses Distillers Solubles (MDS)	2.52	3.07
3% Fish Solubles (FS)	2.82	2.74
3% Dried Whey (DW)	2.84	2.87
3% FS & 3% DDS	2.77	2.97
3% DW & 3% FS	3.04	2.81

RESULTS USING 3% DRIED WHEY AND MDS

TREATMENT	INCOME	FEED COST	INCOME OVER FEED COST
Basal	$562.50	$353.25	$209.25
3% MDS	630.00	388.35	241.65
3% FS	705.00	389.44	315.56
3% DW	710.00	414.89	285.11
3% FS & 3% MDS	692.50	415.46	277.04
3% DW & 3% FS	760.00	438.20	321.80

Per 1,000 birds

Dried whey at 3% level, in combination with molasses solubles and fish solubles, increases profit over feed cost.

TREATMENT	AVE. 10 WK. WT. (LBS.)	FEED GAIN
Basal	3.59	2.66
3% Condensed Fish Solubles (FS)	3.68	2.62
3% Dried Whey (DW)	3.69	2.54
3% Distillers Dried Solubles (DDS)	3.65	2.61
3% FS & 3% DW	3.81	2.54
3% FS & 3% DDS	3.74	2.50
3% DW & 3% DDS	3.85	2.61
3% FS & 3% DW & 3% DDS	3.95	2.54

Cost of basal ration figured at $5.00 cwt Dried whey calculated on a corn replacement basis; fish solubles and distillers dried solubles on replacement of some corn and some soybean oil meal Broiler price at 25¢ per pound.

RESULTS USING 3% DRIED WHEY AND DISTILLERS SOLUBLES

TREATMENT	INCOME	FEED COST	INCOME OVER FEED COST
Basal	$897.50	$477.45	$420.05
3% FS	920.00	485.96	434.04
3% DW	922.50	477.09	445.41
3% DDS	912.50	478.21	434.29
3% DW & 3% FS	952.50	496.43	456.07
3% FS & 3% DDS	935.00	472.18	462.82
3% DW & 3% DDS	962.50	512.45	450.05
3% DW & 3% FS & 3% DDS	987.50	516.70	470.80

Per 1,000 birds

Dried whey at 3% level, either alone or in combination with carriers of other unidentified factors, increases profit over feed cost.

Again, test upon test demonstrates that broiler rations with 2½% to 3% dried whey far outstrip non-whey feeds in profit performance.

A few cents worth of whey in a bag of broiler feed makes birds pack on more meat and substantially steps up profits.

This fact is shown again by eight recent college feeding trials.

In these experiments dried whey in well-fortified basal rations boosted income over feed cost by up to 8¢ per bird. Growth was speeded as much as 0.59 lb. per bird in 10-week growing periods.

Note in the first table at left how dried whey also improved feed conversion (from 3.14 to 2.87); jumped income over feed cost per 1,000 birds from $209.25 with basal alone to $285.11 with whey added to basal.

Even when the basal was further fortified with fish solubles and distillers dried solubles in other tests, DRIED WHEY stepped up profits as much as $20 per 1,000 broilers.

These impartial studies show again that whey makes a good ration better — at a cost low enough to add a good profit.

If you finance broilers or sell to broiler growers, that's a fact worth knowing. It means that dried whey, in many cases, can spell the difference between profit and loss on a given batch of broilers.

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this particular system was from the Hawaiian Islands. We had reports from the men who were working with cage layer management there, and the one precaution that they seemed to have to take with their climate was the matter of protection from wind. Birds in cages cannot be subjected to heavy winds. From there, this system seemed to move to the southern part of California, then to Arizona and New Mexico, across Texas and into the southeastern part of the U.S. It has been a very successful system of management in the areas of mild and temperate climates.

As I see it, the cage system has certain advantages and certain disadvantages when compared with the floor system.

ADVANTAGES—First, the advantages usually listed:

1. Absolutely accurate culling is possible. The birds are kept in individual cages, the eggs roll out, and there is very little danger of them being shifted from in front of one bird to the other. If this is of sufficient importance, it can be prevented very easily by running a wire down to the end of the egg basket from the cage. Even when eggs are produced and drop through the cages, they can be seen very readily on the droppings beneath the cages. Therefore, there is complete information on every bird in the cages, but in many cases this information is not used properly and culling has been excessive. Data will be presented on this point.

2. There may be an increase in salvage value from the culls. When we have complete records on the birds, we can cull them before they lose weight or before they start to moult to the point where they are not full feathered. In these two ways we may increase the salvage value.

3. & 4. There has been a tendency toward lower mortality in the cages. Since the birds may be culled more rigidly, more accurately, many of the birds which might be subject to disease later can be removed before that situation develops. In addition, a fourth advantage is that cannibalism and pick outs are almost completely eliminated and this also helps reduce the mortality. It is, of course, possible for birds to pick another through the cages, but the bird can always escape and there is very little problem from this standpoint.

5. There is more uniformity in maturity in cage pullets. Some work done at the South Carolina Station demonstrated that approximately 10% of the birds on the floors were delayed in sexual maturity as compared to those that were placed in cages. The reason for this is the social order that develops in any flock of birds. The weaker and more timid birds are kept from feed and water, and consequently do not get enough to eat and drink to grow to their fullest capacity. When the pullets are put in cages, they have the full 10 in. of feeder space before them and 5 in. of water space at the rear of the cage and they can get feed and water constantly. Therefore, we do get more uniform sexual maturity in the pullets when they are placed in the cages.

6. There are fewer dirty eggs in the cage operation. This advantage does not always hold true, because there are areas where the humidity may be high and at the same time the atmosphere somewhat dusty, and when this occurs, the dust adheres to the wires of the cages and a high percentage of the eggs may be wire marked in spite of daily cleaning of the floors of the cages. However, on the whole, I think it is safe to say that there are fewer dirty eggs. In one of our own operations we have had less than 4% of eggs which needed to be cleaned even because of the slightest wire mark, while in another operation we have had to clean as high as 37% of the eggs at various times, even though some of these were only very slight wire marks.

7. We get better egg quality from eggs produced in cages. This is because the eggs roll out into a wire basket immediately when they are laid, and they are subjected to air cooling immediately. Even in times of high temperatures, this temperature is usually somewhat less than we find in the nest under the hen. Therefore, better egg quality may properly be listed as one of the advantages.

8. There is a more uniform egg supply when cages are used. This is because the cages are kept filled constantly and we have the house producing at capacity continuously instead of starting at a peak and then being below that peak as the mortalities and culling remove birds from the laying floor flock.

DISADVANTAGES — There are also some disadvantages inherent in this system of management as compared to floor management.

1. Cost of equipment. As the cages are usually arranged with aisle space between them, we get no more birds in any one house than we do when we allow 3 to 3½ sq. ft. of floor space per bird on the floor. Therefore we have the cost of cages in addition to the cost of the construction of the house when we use this system. This is offset somewhat by the cost of feeders and waterers, but we must say that there is a somewhat higher cost of equipment when the cage operation is used.

2. The necessity for raising small groups of pullets. As the usual thing, 15% of the laying flock is used as the number of pullets to start every 10 weeks in order to keep a constant supply of replacement pullets available. This results in inefficient operations because it means that we will be starting 150 chicks per 1000 cages every 10 weeks. This is definitely not an efficient size operation from the standpoint of labor unless the cage operation is a large one.

3. There is a fly problem when this system of management is used because the accumulation of droppings under the cages provide an ideal place for the breeding and developing of flies and fly larvae. During the last couple of years this has been controlled quite effectively by the use of malathion both in the form of liquid spray and in the form of Fly

(Continued on page 49)

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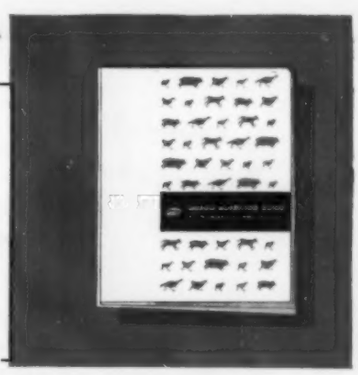

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R. O. Bowman Retires From Feed Business

MEDINA, OHIO—After 52 years in the feed, seed, livestock and farm supply business, R. O. Bowman has announced that he is retiring. The Medina Farmers' Exchange Co. has taken over the entire stock of feed and feed formulas from R. O. Bowman, Inc. The Bowman mill will be closed.

The Bowman Automobile Sales Co., Inc., of which Mr. Bowman is president, will continue to operate.

Mr. Bowman, who is 72, has been one of the most widely known feed and supply dealers in Ohio. He was born in Medina County and entered business with his father in 1904. In 1910 the elder Mr. Bowman retired and under his son's leadership the business continued to grow and prosper. New lines were added and in 1941 a new building was completed. Mrs. Bowman helped her husband in the business for 46 years.

Bowman's "Facts and Fun for Farmers," a semi-monthly farm publication, will also be discontinued. This four-page newspaper enjoyed a wide circulation throughout the state and it won for "R. O." a host of friends and customers.

Mr. and Mrs. Bowman's plans for the future are still indefinite.

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Pfizer's Sales Up 13% In '55 for New Record

NEW YORK—For the sixth consecutive year sales of Chas. Pfizer & Co., Inc., reached a new record high in 1955.

A preliminary report issued this week indicates that last year's sales by the drug and chemical manufacturing firm totaled $163,794,000—an increase of 13% from the $145,238,000 recorded in 1954.

Pfizer's net income also attained a new high of $15,326,000 as compared with $15,200,000 the previous year. Earnings per share of common stock were $2.94 on 4,960,000 shares outstanding. In 1954 they were $2.95 on 4,901,000 shares outstanding.

Earnings before taxes were up 16%, from $22,900,000 to $26,570,000.

The report shows an improvement of more than $4 million in the company's cash and marketable securities position. Working capital increased approximately $8,500,000 and stood at $63,384,000 at the end of the year.

John E. McKeen, Pfizer president, reported that all four of the company's domestic marketing divisions —Pfizer laboratories, J. B. Roerig & Co., chemical sales and agricultural sales—and the international subsidiaries exceeded their 1954 sales.

Domestic profits were up, Mr. McKeen said, but foreign earnings were reduced primarily because of adverse economic conditions in certain important markets.

USDA to Assist With Soybean Export Study

WASHINGTON—The U.S. Department of Agriculture has announced that it is cooperating in a study designed to bring about a better understanding of present methods of grading, sampling and loading soybeans for export.

The Foreign Agricultural Service and the Agricultural Marketing Service have approved a proposal by the International Association of Seed Crushers to join with the association in studying soybean grading, sampling and loading at U.S. ports, and later conducting a similar study when the same soybeans reach European ports.

A comparison of the condition of soybeans unloaded in Europe with the condition of the same beans at time of shipment from the U.S. is expected to be useful in determining possible justification of assertions of some European buyers that the quality of U.S. soybean exports does not always meet the demand of European markets.

Kansas Grain Grading Schools Scheduled

KANSAS CITY—Sanitation will be stressed at the series of 1956 grain grading schools which will be held in Kansas during March. The schedule, as announced recently by the sponsoring agencies, is as follows: Salina, March 12; Hutchinson, March 13; Wellington, March 14; Parsons, March 15; Topeka, March 16; Plainville, March 19; Colby, March 20; Ulysses, March 21; Dodge City, March 22, and Kiowa, March 23.

The full day's program will be repeated at each of the cities. Sponsoring the series are the grain division of the Agricultural Marketing Service, U.S. Department of Agriculture; the Kansas state grain inspection and weighing department, Kansas State College extension service; Kansas Wheat Improvement Assn., and the Kansas Grain & Feed Dealers Assn.

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CAGE LAYER MANAGEMENT

(Continued from page 44)

Bait. The Fly Bait is scattered around the aisles, window ledges and elsewhere in the houses, and the liquid spray is applied to the droppings. Prior to the advent of malathion, the fly problem was very serious and in some areas cage operations were restricted near some of the larger cities.

4. A problem of cage fatigue has been observed in battery operations, but I have never seen this particular condition among floor managed birds. In this condition the higher producing birds are usually affected. They develop some symptoms that are typical of rickets; that is, they go out of production and develop a typical rachitic lameness. There is this difference, however, and that is that the bone ash, which is one of the best criteria of rickets, is usually normal in value. Egg shell texture may be normal, or a few thin or soft-shelled eggs may be produced.

Much work has been done on this problem at several of the experiment stations and in our own research laboratories. Unfortunately no solution is available even though we have investigated the effect of varying levels of calcium and phosphorus, of varying levels of vitamin D and manganese and some of the water soluble vitamins as well. This remains one of the problems to be solved for this type of operation. Usually the mortality is not high from this problem, and quite frequently birds will recover spontaneously while they are in the cages or if they are removed from the cages and placed on the floor.

5. This system requires more careful temperature control. When temperatures go to extremes at the upper limit such as we had in 1954, mortality was considerably higher in cages than it was among floor birds. For example, we happened to have a group of heavy New Hampshire pullets in cages at that time, and there was almost a 50% mortality among these birds when the temperature went to 109° with high humidity. Similar birds on the floor suffered very little mortality.

Davis at Wyoming has had very good results even in the season when the temperatures dropped considerably below freezing. Heating cables, of course, are used to keep the water from freezing when temperatures drop below 32°. However, in our own work we have experienced some decrease in production when the temperature outside dropped to approximately 10°—0° F. in a non-insulated or non-heated house. We need more information on the effects of temperatures, both high and low, on caged birds.

6. More labor is required if accurate records are kept because here we are dealing with individual bird records and not with flock records. It is true that flock records can be

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kept here also, but if this is done, we lose the value of the information for culling which I listed as one of the advantages.

CULLING PRACTICES—It has become common practice, in some sections of the country at least, to cull any bird that drops below 50% production for a period of 14 days. We have kept some records on 2,000 birds, 1,000 of which were culled under this system and the other 1,000 were not culled. These cages were all filled at the same time from pullets that were grown in the same flocks. The data in Figure 1 illustrate the point very clearly that we accomplish nothing by culling until these birds have passed the eighth month of production and possibly a little later than that. After that time the two production curves begin to spread out.

This work is substantiated by some data from California where the extension service reported that nothing was accomplished by culling floor birds until they had been in production for approximately six months. Of course, when I refer to culling here, I am referring to culling for egg production only and not to culling for disease, because it is obvious that that should be done continuously.

When there is heavy culling, as there was in the case of the birds here, we are losing the difference between the value of the culls we sell and the cost of growing replacement pullets. When those costs are equal, it makes very little difference how severely we cull. However, when it is costing approximately $1.70 to $1.80 each to grow pullets to replacement age as it was during this period, and culls may drop as low as 45 to 50¢ or even lower, it is costing money to cull too severely.

Table 1—Feed Required for Maintenance and Egg Production*

Aver. live weight	Eggs per year			
	0	100	200	300
	Pounds of feed			
3.0	47	61	75	89
3.5	52	67	81	95
4.0	57	71	85	99
5.0	65	80	94	108
6.0	74	88	102	116
7.0	81	96	110	124

*N. R. C.

We have adopted a system now of culling only those birds that drop below 50% levels for at least 28 days, because many of the birds will have been in production for more than the minimum period of 6 to 8 months mentioned above. Further work will be needed to determine whether this is the most practical system. The point that has been established, though, is that we should not cull too severely.

EFFECT OF BODY WEIGHT—The cage system of management has also emphasized the effect of body weight of the laying hen on her efficiency in producing eggs. Table 1 is taken from the recommendations of the National Research Council. Here are listed the approximate feed requirement for maintenance and egg production for birds of various weights and at four different levels of production.

Table 2—Effect of Temperature on Production*

	70°	80°	90°	100°
Feed consumption	Normal	—7%	—29%	—58%
Water consumption	Normal	+4%	+26%	+35%
Egg production	Normal	—9%	—22%	—54%
Egg weights (gms.)	59.3	58.9	58.1	49.8
Shell thickness (mm.)	.32	.30	.28	.245

*Wilson, California.

It will be noted that a 3½-lb. bird producing at the rate of 200 eggs per year will require only 81 lb. of feed to reach this level of performance while a 6-lb. bird requires 21 lb. more feed to produce the same number of eggs. Therefore, we must use the lighter weight bird for egg production, provided of course, that they have the inherent ability to lay large numbers of eggs, to lay standard size eggs, and to continue producing them throughout the entire year.

Some of our own work has emphasized this point still further. One group of birds averaging 5.3 lb. in mature body weight produced at a rate of 67.49% for the year, and they required 4.77 lb. of feed to produce each dozen eggs. Another group with a mature weight of 4.71 lb. which produced at a somewhat slower rate of 63.8%, produced eggs for 4.48 lb. of feed per dozen eggs. In other words, birds with a mature body weight of .6 lb. less at a slightly lower rate of production produced eggs for over ¼ lb. of feed less per dozen. If we are interested only in egg production, we must use the smaller body size birds.

EFFECTS OF TEMPERATURE—The effect of temperatures on egg production was mentioned above. The figures in Table 2, taken from some work by Wilson of California on the effect of temperature on egg production, water consumption, etc., are very enlightening from this standpoint. It will be noted here that when the temperature rises from a so-called normal of 70° to 100°, there is a decrease of 59% in feed consumption. At the same time, there is an increase of 35% in water consumption with a drop in egg production of 54%, a drop in egg weight of approximately 10 gm. and also a decrease in shell thickness.

This, of course, is typical of birds in either cages or on the floor, but it must be remembered that when the birds are in the cages, they cannot get away from the heat. It hits them from all sides. This probably accounts for the higher mortality we experienced in our heavy birds in cages.

Along with this though, the increased water consumption does cause another problem in cage management. That is the watery droppings problem. At times, the droppings do become of such water consistency as to be an objectionable feature both from the standpoint of management and also from the standpoint of fly problems.

To date there seems to be only two ways of handling this problem. One of them is to use litter in the droppings, scattering it over the droppings as they accumulate on the floor to absorb the moisture, or to put down litter as an absorbent base. The other is to feed a high fiber diet to the hens. It would seem more efficient to put the fiber under or on the drop-

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FEEDING PROGRESS

MINNEAPOLIS — The advances made in poultry nutrition and feeding and management are well exemplified in an old letter which was discovered recently by Dr. J. Wesley Nelson of Nutrena Mills, Inc., Minneapolis. While going through some old papers, Dr. Nelson found a letter he had written in October, 1912, from his home in Mankato, Minn., to his father, who was out of town. Dr. Nelson was eight years old at the time. The letter included these remarks about feeding and the hens the Nelson family had: " . . . We gave the chickens all that white corn. I hope you won't care. Edgar (Dr. Nelson's brother) bought a nickel's worth of ground corn. . . . Mamma says if we could get 3 or 4 more hens, we might keep our chickens all winter and have some eggs. Aunt Christine said our playhouse would be warm enough if we papered the inside good and had some old rugs on the outside and fixed a window for the sun to shine in."

pings than it would be to pass it through the hen. However, both systems are used.

SHELL QUALITY—The matter of shell quality produced in cages is also of interest. In records kept on 200,000 eggs during a 12-month period, we have the results which are reported in Table 3. It will be noted that the number of soft shelled eggs was less than 1%, the number broken was less than ¾ of 1% and the number of checked eggs was 1.2%. This is a very creditable record for any type of operation. Therefore, we may say that there is no particular problem with breakage or checks in the cage laying operation when it is managed properly.

CONCLUSION — In conclusion, I believe we are justified in saying that the caged laying operation is another method of handling laying pullets or hens which has taken its place in the warmer climates along with the other types of management. I do not feel that it will replace other systems of management. It is, let me emphasize, another system of management which has certain definite advantages but also a few disadvantages when compared with the floor type of operation.

The question of whether this system of management will be practical in the colder climates is one which remains to be answered. In my opinion, there is no reason why it cannot be handled successfully. I am sure that we can solve the problems of proper temperature and ventilation. However, I am definitely of the opinion that the extent to which this system of management will be used in the colder climates will depend entirely upon economics. In other words, will it cost more to provide the proper temperature and ventilation for these birds than it will for the birds on the floor, and if so, will that cost be offset by the other advantages of this system of management?

Cage management has taken its place as another successful system of handling birds that are kept for egg production.

Table 3—Shell Quality*

	No.	%
Eggs laid	200,021	..
Number soft shelled	1,961	.98
Number broken	1,431	.72
Number checked	2,405	1.20

*One year records.

NEW FEED STORE TO OPEN

HUTCHINSON, KANSAS— A Nutrena feed store will be opened here in March by Dick Brown, operator of the B&B Welding Co. The new store, located at 308 South Main St., is to be known as Brown Bros. Supply. Bill Brown of Potwin, Kansas, a brother, will join the firm later. In addition to a complete line of feed, the firm will handle baby chicks, fertilizer and garden seeds.

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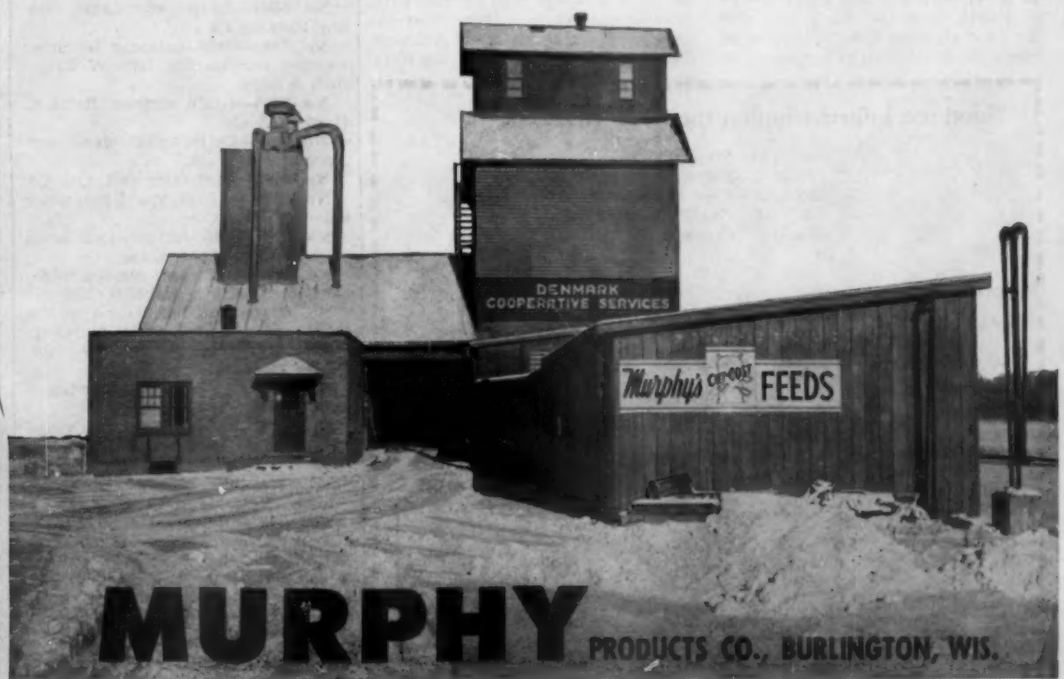

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No. 5406—Film on Scours

Progress in controlling the calf and pig disease, infectious scours, is depicted in a new film produced by Chas. Pfizer & Co., Inc. The 13-minute movie, titled "Victory Over Scours," describes treatment of the disease with terramycin. It was filmed at Pfizer's agricultural research center near Terre Haute, Ind., and at a cooperating dairy and hog farm near the center. The film traces the search for effective control of scours and outlines the development of special animal dosage forms of terramycin at the agricultural research center. Featured players are a farmer and his 10-year-old son. Prints of "Victory Over Scours" are available on request. To get more complete information check No. 5406 on the coupon and mail it to Feedstuffs.

No. 5407—Pallet Repair Manual

Economical methods of repairing wooden pallets used with materials handling equipment in the Armed Forces have just been released to industry in the form of a manual which is for sale for $1 through the Office of Technical Services, U.S. Department of Commerce. The report, prepared by the Navy, includes information on the 48 by 72 in. stevedore pallet, the 48 by 48 in. pallet and the 40 by 48 in. pallet, both the block type and the four stringer type. Examples of types of damage which cannot be economically repaired are illustrated. Also included is a method of converting the 48 by 48 in. pallet to a 40 by 48 in. pallet for use with the straddle type fork truck and methods of cutting the block type and the stringer type for adaptation to the straddle truck. The report is PB 111755 Pallet Repair Manual, H. A. Rothe and M. Toscano, Naval Supply & Development Facility, Bayonne, N.J., April, 1955, 34 pages. It may be ordered from OTS, U.S. Department of Commerce, Washington 25, price $1.

No. 5408—Feed Analysis Table

A newly revised feed ingredient analysis table has been published by the Nopco Chemical Co. Presenting the nutritive content of 64 common feed ingredients in an easy-to-read form, the table is intended as a basis for quickly computing a mill's feed formulas. The figures have been checked to correspond with the latest nutritional data, company officials state. Feed mixers may obtain a free copy of the chart by checking No. 5408 on the coupon and mailing it to this publication.

No. 5409—Grain Sanitation Booklet

"Meeting the Challenge of America's New Grain Sanitation Requirements" is the title of a brochure being distributed by the Douglas Chemical Co. The 8-page booklet deals with grain sanitation "in a frank, easy-to-understand discussion of the problems facing both the farmer and the commercial elevator man," the company announcement states. The brochure outlines the steps necessary to combat the insects that destroy thousands of dollars worth of grain each year, it is explained. A copy of the booklet may be obtained by checking No. 5409 on the coupon and mailing it to this publication.

No. 5410—Conveyor Brochure

The Seedburo Equipment Co. has prepared a 12-page illustrated brochure on its conveyors known as the Hytrol line. The conveyors are designed for handling bags, boxes, cases and cartons in the feed, fertilizer, grain, seed and allied agricultural trades. The brochure, designated No. H-545, is available without charge. Check No. 5410 on the coupon, clip and mail it to this publication and the brochure will be mailed to you.

Also Available

The following new products have been described in previous issues of Feedstuffs and information about them may still be obtained by jotting the appropriate number on the coupon and forwarding it to Feedstuffs.

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No. 5394—22nd edition of "Profitable Poultry Management," Beacon Milling Co., Inc., Cayuga, N.Y., free within Beacon's distributing area from the Virginias to Maine, excluding western Pennsylvania and western New York, $2 outside the area.

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1955 SHIPMENTS OF FEED IN CANADA UP

WINNIPEG — Shipments of prepared stock and poultry feeds in Canada in 1955 amounted to an estimated 2,727,875 tons, up from 2,677,586 tons shipped a year ago. The yearly total was made up of 288,773 tons of primary or concentrated feeds, 1,882,444 tons of secondary or complete feeds and 556,658 tons of other animal feeds. The statistics were released Feb. 24 by the Dominion Bureau of Statistics.

Commercial Solvents Ups Net Earnings

NEW YORK—Commercial Solvents Corp. this week announced that for the year ended Dec. 31, 1955, consolidated net earnings totaled $3,451,813, well above the previous year's earnings of $2,668,342.

The earnings in 1955 were equal to $1.31 a share, which includes extraordinary net income of 12¢ a share, on 2,636,878 shares of common stock. This compares with $1.01 a share on the same number of shares a year earlier.

Sales for 1955 were $56,623,754, compared with sales in 1954 of $51,608,349.

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What's New in Feeding

Putting Feed Research to Work

The Nutritional Merits of Pelleting Calf Starters

● C. A. Lassiter, T. W. Denton, L. D. Brown and J. W. Rust, University of Kentucky; Journal of Dairy Science, Vol. 38, No. 11, pages 1242-1245, November, 1955.

Because of the popularity of pelleted feeds and the advantages found for pelleting swine and poultry feeds, these workers wished to determine the nutritional values of pelleting calf starters.

Forty-five new-born dairy calves were raised to 72 days of age on a limited whole milk-alfalfa hay-starter system. The starter consisted of 225 lb. linseed oil meal, 540 lb. crimped oats, 260 lb. yellow corn, 225 lb. wheat bran, 450 lb. distillers dried solubles, 22.5 lb. of Aurofac 2A. The starters were prepared in three forms: all meal, all pellet, and part meal and part pellet.

When the calves were limited to just one type of starter, it was found that the physical texture of the starters had no significant effect on the average daily gain, skeletal growth, incidence of scours, the consumption of hay or starter, or the efficiency of feed utilization of the calves. However, the calves consumed considerably more of the all-pelleted starter than either of the two other starters. Also the consumption of the part meal and part pellet starter was significantly greater than that of the all-meal starter.

COMMENTS:

One would not normally expect any nutritional differences in the starters because of the pelleting. However, there are points in favor of pelleting. It eliminates dust, which can at times minimize the appeal of a feed. Pelleting also minimizes waste when feeding the starter. And, as pointed out in this report, pelleting results in a definite increase in the palatability. While this did not have any effect on the nutritional values of the starter in this study, it is actually an important factor, for whenever you can increase consumption of a well balanced, properly fortified feed, you are bound to increase gain and feed efficiency. There is very little reason for not pelleting a calf starter.

Effect of Proteins of Plant And Animal Origin on Growth, Reproductive Development and Semen Production of Young Dairy Bulls

● R. J. Flipse, J. O. Almquist and P. E. Johnson, Pennsylvania State University; Journal of Dairy Science, Vol. 39, No. 1, pages 60-65, January, 1956.

Since little is known of the effects of protein quality on the growth and development of young dairy sires, an investigation of this nature was undertaken.

Three experimental groups were studied. Unpasteurized skim milk provided most of the protein for one group, animal feed grade dried skim milk was used for the second group, and the third group received a ration containing vegetable proteins predominantly supplied by soybean oil meal. Calves three weeks old were started on the experiment. Nine sets of twin Holstein calves were used; thus six calves were assigned to each group.

Source of protein had no significant effect upon growth, the concentration of hemoglobin, total serum, protein, urea, and non-protein nitrogen in the blood, or the age or size at which viable spermatozoa were first collected from the bulls. Tests of semen quality indicated that the volume of ejaculation was adversely affected by the dried skim milk ration, and the number of spermatozoa per milliliter of semen was increased by the liquid skim milk ration; initial motility, rate of motility, per cent live spermatozoa, and survival upon storage at 5° C were not affected by the treatment.

COMMENTS:

It is difficult to make a critical evaluation of protein quality of feedstuffs with ruminants because of the ability of the rumen microorganisms to synthesize proteins and amino acids. It may be possible to do so during the early portion of the calf's life—that is, prior to the time the rumen begins to function which is about two to three months of age—as at this time it requires vitamins, amino acids, and other preformed nutrients the same as other young single-stomached animals. Since the animals in this study were carried through to maturity, no great value can be attached to the results. There is also some doubt as to the practicality of continuous feeding of liquid or dried skimmilk.

The young dairy bull is frequently the most neglected animal in the dairy herd. While most farmers take great pains in selecting a herd sire, they do not see to it that he is properly fed so as to put him at the peak of his potential.

The young bull is a rapid growing animal and very rarely is allowed to graze. These two things alone put him in a special category. Special precautions should be taken to see that his carotene requirements are met through the feeding of good quality roughage and if not in this manner by the feeding of a supplement containing vitamin A. Protein supplements fit very well into a young bull feeding program. If the rumen is properly fed, so will the animal be. Good feeding of the herd sire is essential, for after all he is the foundation of the herd.

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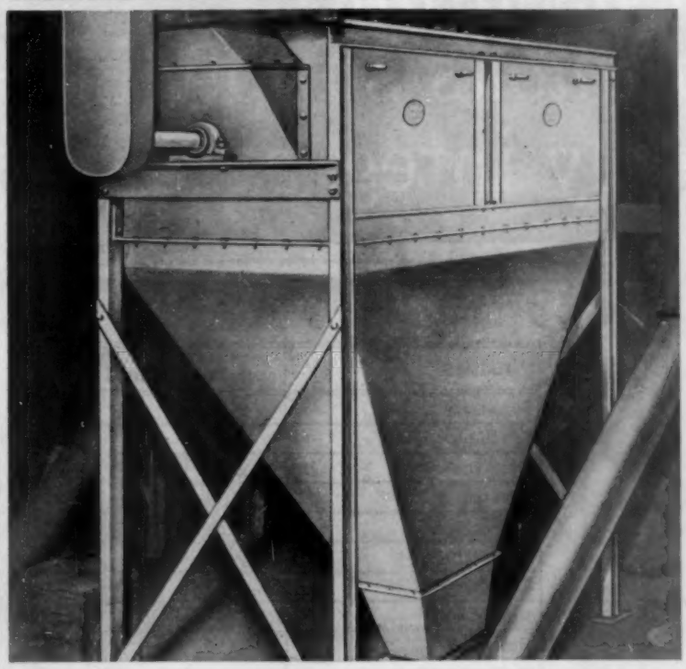
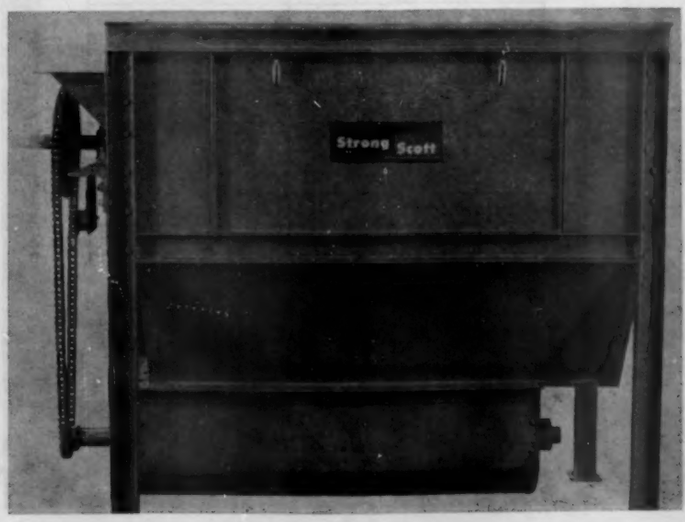
NEW PRODUCT NEWS



Large Capacities and Many Equipment Combinations Available for Reel Scalper

Strong-Scott's No. 40 Reel Scalper is made in reel lengths of 48", 60" and 72". Capacity, of course, varies with the job. A 72" machine will scalp ground feed through a ¾" mesh at 20 to 30 tons per hour. Similar high capacities are produced by the 48" and 60" machines.

Drive can be provided with a ½ H.P. motor and a roller chain arrangement. Drive shafts are 1-11/16" in diameter. On request Strong-Scott will mount a miter gear assembly on the drive end for right angle operation at nominal extra cost. A screw conveyor can also be mounted in place of the center discharge as shown below.



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Strong-Scott's No. 40 Reel Scalper has many uses. It removes all particles either larger or smaller than the wanted material. It rapidly separates fines from pellets or crumbles; it removes cobs and husks from shelled corn; strings, rocks or other coarse refuse from whole grain; and it can be used for many other purposes. Because the screens can be changed quickly, without removing the reel, switching from one separating job to another is simple and fast.

All Metal Construction

The metal reel itself is clothed with a heavy wire mesh screen. And the heavy reel shaft is extended in such a fashion that the drive can be placed at either end. In designing the machine internal ledges have been eliminated to prevent infestation. This is an important feature because of the new government regulations concerning contamination.

Removable Doors

Another first feature of the Strong-Scott No. 40 All Metal Reel Scalper is the large, readily removable doors which provide easy access to the reel for inspection or reclothing without removing the reel from the machine.

Discharge

The standard machine is hoppered to discharge material which passes through the mesh through a central opening in the bottom. Material too coarse to go through the mesh is discharged through another spout at the tail end of the machine. These two spouts are completely isolated from each other so no contamination can occur.

The Strong-Scott Reel Scalper is another example of the results obtained through research and new product development for which Strong-Scott is famous.

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CONVENTION CALENDAR

March 15-16—Oregon Feed & Seed Dealers Assn.; Multnomah Hotel, Portland; sec., Russ Hay, 702 Lewis Bldg., Portland 4, Ore.

March 18-19—Quad-State Convention sponsored by Sioux City Grain, Feed & Seed Assn.; Martin Hotel, Sioux City, Iowa; sec., N. G. Nichols, 901 Missouri River Road, Sioux City, Iowa.

March 18-23 — Grain Elevator & Processing Superintendents; Muehlebach Hotel, Kansas City, Mo.; sec., Dean M. Clark, "Grain," Board of Trade, Chicago 4, Ill.

March 22-23 — Maryland Nutrition Conference for Feed Mfrs.; Shoreham Hotel, Washington, D.C.; chmn., Dr. G. L. Romoser, U. of Md., College Park, Md.

March 29—Illinois Swine Growers Day; U. of Ill., Urbana; chmn., S. W. Terrill, Dept. of Animal Science, U. of Ill., Urbana, Ill.

April 3—Purdue Egg Day; Lafayette, Ind.; chmn., David D. Jackson, Ind. Agricultural Extension Service, Lafayette, Ind.

April 5—Texas Feed Manufacturers; Hotel Texas, Ft. Worth; sec., Monroe U. May, P.O. Box 6666, Dallas 19, Texas.

April 6-7 — Texas Grain & Feed Dealers Assn.; Hotel Texas, Ft. Worth; sec., Ben Ferguson, 614 Meacham Bldg., Ft. Worth 2, Texas.

April 9-11—American Assn. of Feed Microscopists; Deming Hotel, Terre Haute, Ind.; chmn., Robert C. Wornick, Chas. Pfizer & Co., Terre Haute, Ind.

April 10-12—Council for Agricultural and Chemurgic Research; Congress Hotel, Chicago; chmn., John W. Ticknor, Council for Agricultural and Chemurgic Research, 350 Fifth Ave., New York 1, N.Y.

April 12-14—California Hay, Grain & Feed Dealers Assn.; Ambassador Hotel, Los Angeles; chmn., Jack Flammer, 5935 So. Malt Ave., Los Angeles 22, Cal.

April 12-18—National Fisheries Institute; 4-Most Hotels, Miami Beach, Fla.; mgr., Max Xavier, 1614 20th St., N.W., Washington 9, D.C.

April 16-17 — Nebraska Grain & Feed Dealers Assn.; Hotel Cornhusker, Lincoln; sec., Howard W. Elm, 917 Trust Bldg., Lincoln, Neb.

April 19—Illinois Feed and Nutrition Conference; Univ. of Illinois, Urbana; chmn., Dr. John H. Byers, Dairy Science Dept., Univ. of Ill., Urbana, Ill.

April 27 — Purdue Cattle Feeders' Day; Lafayette, Ind.; chmn., W. M. Beeson, Dept. of Animal Husbandry, Purdue University, Lafayette, Ind.

May 3-5 — Kansas Grain & Feed Dealers Assn.; Kansan Hotel, Topeka; sec., O. E. Case, 901 Wiley Bldg., Hutchinson, Kansas.

May 13-14—Missouri Grain, Feed & Seed Assn.; Kentwood Arms Hotel, Springfield; sec., D. A. Meinershagen, Higginsville, Mo.

May 21-22 — National Cottonseed Products Assn.; Statler-Hilton Hotel, Dallas; sec., John F. Moloney, 19 S. Cleveland St., Memphis, Tenn.

May 23-25—American Feed Manufacturers Assn.; Morrison Hotel, Chicago; sec., W. T. Diamond, 53 West Jackson Blvd., Chicago 4, Ill.

June 4-5 — Eastern Federation of Feed Merchants; Hotel Commodore, New York; sec., Howard J. Benson, Eastern Federation of Feed Merchants, Sherburne, N.Y.

June 4-5—Georgia Feed & Poultry Conference; Dinkler Plaza Hotel, Atlanta; sec., Will L. Kinard, 208 Wil-

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Creped Kraft	✓	
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Flat Sewn Open Mouth Bags	✓	
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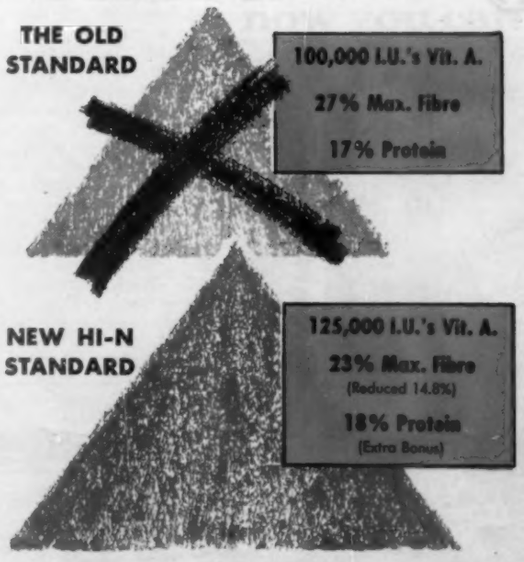
Establishing a New High Standard in Dehydrated Alfalfa for the Feed Industry



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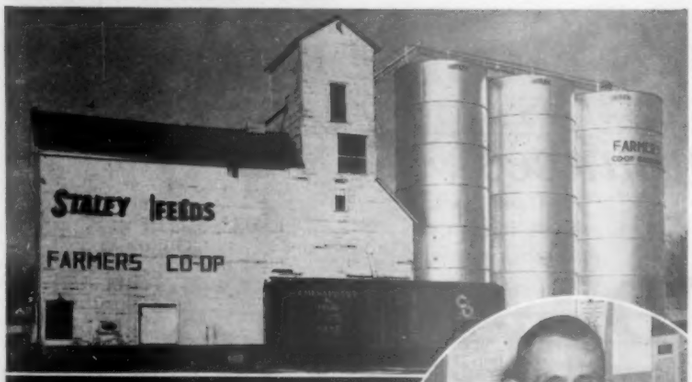

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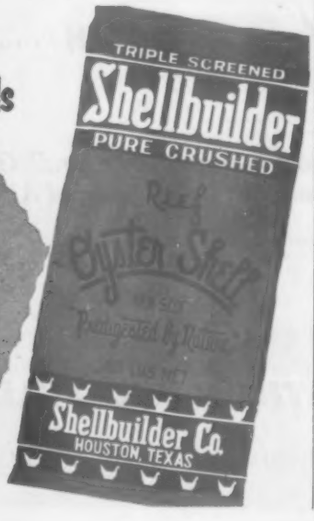


liam-Oliver Bldg., Atlanta 3, Ga.

June 6-9 — Grain Processing Machinery Manufacturers Assn.; French Lick Springs Sheraton, French Lick, Ind.; sec., Raymond J. Walter, 511 Fifth Ave., New York 17, N.Y.

June 7-10 — Canadian Feed Mfrs. Assn.; Sheraton Brock Hotel, Niagara Falls, Ont.; reg., Herbert Hickling, Wm. Stone Sons, Ltd., Ingersoll, Ont.

June 11-12 — Montana Nutrition Conference; Montana State College, Bozeman; chmn., O. O. Thomas, Montana State College Agricultural Experiment Station, Bozeman, Mont.

June 12-14—Alabama Poultry Industry Assn.; Thomas Jefferson Hotel, Birmingham, Ala.; sec., W. L. Walsh, P.O. Box 567, Montgomery, Ala.

June 15—Pacific Northwest Grain Dealers Assn.; Davenport Hotel, Spokane, Wash.; sec., Pete Stallcop, 418 Peyton Bldg., Spokane, Wash.

June 17-19—Indiana Grain & Feed Dealers Assn.; Purdue Union Bldg., Purdue University, Lafayette, Ind.; sec., Fred K. Sale, 600 Board of Trade Bldg., Indianapolis, Ind.

June 17-19—Louisiana Poultry Improvement Assn.; St. Charles Hotel, New Orleans; chmn., Clyde Ingram, Louisiana Extension Service, University Station, Baton Rouge, La.

June 18-21 — American Dairy Science Assn.; Univ. of Conn., Storrs; chmn., W. R. Hesseltine, Univ. of Conn., Storrs, Conn.

June 20-22—Delmarva Chicken Festival; Ocean City, Md.; sec., J. Frank Gordy, Delmarva Poultry Industry, Inc., Selbyville, Del.

June 28-30—Association of Southern Feed & Fertilizer Control Officials; Hotel Roanoke, Roanoke, Va.; sec., Bruce Poundstone, U. of Ky. Agricultural Experiment Station, Lexington 29, Ky.

July 17-20 — American Poultry & Hatchery Federation; Minneapolis Civic Auditorium, Minneapolis, Minn.; mgr., Ed G. Gray, 521 East 63rd St., Kansas City 10, Mo.

Aug. 7-10—Poultry Science Assn.; No. Carolina State College, Raleigh; sec., C. B. Ryan, College Station, Texas.

Aug. 10-11 — North Carolina Feed Mfrs. Assn.; Fort Sumter Hotel, Charleston, S.C.; sec., Louis Maxwell, Box 897, Goldsboro, N.C.

Aug. 13-14 — Wisconsin Nutrition School for Feed Men; U. of Wis., Madison; chmn., Gus Bohstedt, Dept. of Animal Husbandry, U. of Wis. College of Agriculture, Madison, Wis.

Sept. 26-27 — Michigan Hatchery Conference; Michigan State University, East Lansing, Mich.; sec., Harry Hathaway, Michigan State Poultry Improvement Assn., East Lansing, Mich.

Oct. 4-5—Texas Nutrition Conference; Texas A&M, College Station, Texas; chmn., J. R. Couch, Dept. of Poultry Husbandry, Texas Agricultural & Mechanical College, College Station, Texas.

Oct. 15-16 — California Animal Industry Conference; Fresno Memorial Auditorium, Fresno; sec., John Gilmore, 1400 10th St., Sacramento 14, Cal.

Oct. 17-18—Assn. of American Feed Control Officials; Shoreham Hotel, Washington, D.C.; sec., L. E. Bopst, U. of Md., College Park, Md.

Dec. 3-4—Farmers Elevator Assn. of South Dakota; Huron, S.D.; sec., C. C. Anderson, 423 Citizens Bldg., Aberdeen, S.D.

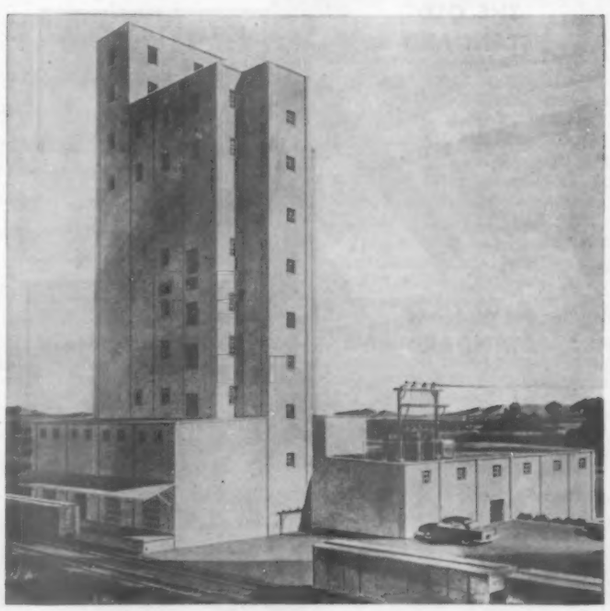
1957

Feb. 4-6—Assn. of Southern Agricultural Workers, Birmingham, Ala.

HIGHEST MILK PRICES

URBANA, ILL.—Dairy cows that calve in fall and winter are in heaviest production when milk supplies are lowest and prices highest, points out a University of Illinois dairy specialist.

RED A FEEDS



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U.S. Calf Crop Up 1% in 1955, Shows Sixth Successive Increase

WASHINGTON—The U.S. calf crop in 1955 totaled 43,001,000 head, 1% more than the 42,601,000 head born in 1954, according to the U.S. Department of Agriculture. This is the sixth successive increase over the preceding year since the number of cattle began to show an upward trend beginning in 1949. The 1955 calf crop was 20% larger than the 1944-53 average.

The figures include both dairy and beef calves.

The large 1955 calf crop resulted from a record number of cows and heifers on farms during 1955. The number of all cows and heifers two years old and older on Jan. 1, 1955, was 49,121,000 head—less than 1% larger than the number on hand a year earlier. Although cow slaughter was high during 1955, cow herds stayed large throughout the year to produce the record calf crop.

The number of calves born expressed as a percentage of cows and heifers two years old and older on Jan. 1, 1955, was 88%—1 percentage point above the previous year, and 4 percentage points above the 10-year average of 84%. This figure is not strictly a calving rate since the Jan. 1 inventory of cows and heifers two years old and older does not include all the heifers which gave birth to calves during the year. The percentage is calculated to show the trend in productivity over a long period of time. It may fluctuate from year to year due to variations in cow slaughter during the year and trends in breeding herd replacements.

North Central Region

The calf crop of 18,133,000 head in the north central states was 6,000 head smaller than in 1954, but 15% above the 10-year average. Each of the east north central states showed fewer calves born in 1955 than a year earlier except Ohio. All west north central states, with the exception of Minnesota, North Dakota and South Dakota, showed fewer calves born in 1955 than a year earlier. In the north central states, the number of cows and heifers on hand Jan. 1, 1955, was 19,877,000 head—an increase of less than 1% from Jan. 1, 1954. The number of calves born as a percentage of cows and heifers two years old and older on Jan. 1, 1955, was 91%, compared with 92% in 1954 and the 10-year average of 89%.

The western states showed a calf crop of 7,266,000 head in 1955, compared with 7,056,000 born in 1954. Only three of the western states, Wyoming, Colorado and Arizona, showed fewer calves born in 1955 than in the previous year. All other western states reported larger calf crops. The number of all cows and heifers on farms and ranches on Jan. 1, 1955, totaled 8,208,000 head—an increase of 2% from January 1, 1954. The calf crop expressed as a percentage of cows and heifers two years old and older was 89%, compared with 88% a year earlier.

South Central States

In the south central states, the calf crop is estimated at 11,202,000 head, compared with 11,089,000 in 1954. The number of all cows and heifers two years old and older on Jan. 1, 1955, totaled 13,151,000 head—a decrease of 1% from 1954. The calf crop expressed as a percentage of all cows and heifers two years old and older was 85%, compared with 84 in 1954. Texas, the leading cattle producing state, showed 4,297,000 calves born—1% above the 4,242,000 head born in 1954. The number of cows and heifers two years old and older on Jan. 1, 1955, in Texas was 4,828,000 head—2% below a year earlier.

In the north Atlantic region, the calf crop totaled 3,095,000 head, compared with 3,023,000 head a year earlier. The number of cows and heifers two years old and older on Jan. 1, 1955, was 3,599,000 head, compared with 3,581,000 head on Jan. 1, 1954. The calf crop was 86% of the number of cows and heifers two years old and older on Jan. 1, 1955.

In the south Atlantic states, the calf crop was 3,305,000 head—about the same as the previous year. The number of cows and heifers two years old and older on Jan. 1, 1955, totaled 4,286,000 head—only slightly larger than a year earlier. The calf crop was 77% of the number of cows and heifers two years old and older on Jan. 1, 1955.

January Farm Income Down 7% from 1955

WASHINGTON — Largely because of lower average prices, farmers' cash receipts from marketings in January —tentatively estimated by the U.S. Department of Agriculture at $2.3 billion—were down 7% from a year ago.

Meat animal prices were down substantially from last year and lower receipts from meat animals held total receipts from livestock and products to $1.3 billion, 3% below last year's level.

Corn receipts were around $1 billion, 12% below a year ago because of lower average prices and smaller marketings, USDA reports.

NEW MILL OPENED

CLERMONT, IOWA — The feed mill of the Clermont Co-op was opened Feb. 22.

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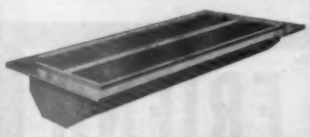

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now you can profit with feeds that hormonize

it's safe—simple—efficient! Add extra advantages to your broiler finisher by supplementing it with the new "in-the-feed" hormonizer...

LIPAMONE®

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These are the advantages you give growers by offering Liponized feed:

No extra work to do or pay for.

No handling of the birds – no set-back, no wet litter, no shock which might lead to increased susceptibility to CRD and other diseases.

No residual hormone to cause concern.

Adding Lipamone to your feed is easy – 1 lb. of Lipamone plus 9 lbs. of carrier makes 10 lbs. of pre-mix; 10 lbs. of pre-mix in 1 ton of broiler finisher makes a Liponized best-seller.

Premium prices are being offered by alert processors who recognize the quality features of Liponettes.

We are urging growers to discuss Lipamone with their feed dealers. Are you fully acquainted with the Lipamone story? We'll be glad to give you complete information and to answer your questions.

important new words for the broiler industry

Lipamone: a free-flowing feed additive for broiler finishers. It contains 14% dienestrol diacetate, a feminizing hormone, in corn distillers dried grains.

Liponizing: the process of adding LIPAMONE to feed, or feeding birds the LIPAMONE-supplemented ration.

Liponette(TM)**:** a broiler which has been Liponized. The demand for these extra-quality birds means better sales for the grower and processor and profit for the manufacturer who supplies the Liponized broiler finisher.

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This insures that Tuxedo Feeds always provide the latest, proven nutritional values, with proteins, vitamins, carbohydrates, fats, and added ingredients—in proper balance for the growth, health and development needs of livestock and poultry.

Tuxedo Dealers can always assure their customers that in Tuxedo Feeds they are getting the very best feeding values needed for profitable production.

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Fulton Bag Announces Three Appointments

NEW ORLEANS, LA.—Three appointments have been announced by officials of Fulton Bag & Cotton Mills.

Rene F. Augay has been named director of bag materials purchases, bag division, by Jason M. Elsas, general manager of the division. Joseph L. Blancett has been appointed sales representative for Fulton in Arkansas and northern Louisiana. Edward Van Schassen has been appointed to the staff of the mills division by Norman E. Elsas, division general manager, Atlanta, Ga.

Mr. Augay of West Hempstead, Long Island, N.Y. will center his activities at Fulton's New York sales office.

Born in Paris, France, Mr. Augay was educated in France and Switzerland. Following several years in the field of banking, he became a business correspondent and sales representative, travelling extensively throughout Europe and the Near East.

In 1939, he came to the U.S. where he was affiliated with Gillespie & Co., New York, as manager of their fiber and burlap departments. More recently he was president of the New England Trading Corp., New York, having managed the company's burlap department for the past 11 years.

Mr. Augay is widely known in burlap trading circles and has been active in the Burlap & Jute Assn. in which he served as a governor for two years.

Mr. Blancett was born in Jonesboro, Ark. He attended Arkansas State College and the College of Business Administration, St. Louis University.

After college, Mr. Blancett became affiliated in a sales capacity with a St. Louis hardware company where he remained until moving to Little Rock. There he continued in the hardware field and subsequently became secretary of the company for which he worked, prior to joining Fulton.

Mr. Van Schassen, of Larchmont, N.Y., will concentrate his mills division activities in the finishing of textile goods including bleaching, dyeing, printing and backfilling. He will be headquartered at the Fulton's New York sales office.

A native New Yorker, Mr. Van Schassen attended schools in Mamaroneck, N.Y., and later was a student at Pace College and Columbia University. Following college, he was employed by one of the nation's large textile mills before entering the Coast Guard during World War II. With the termination of military service, Mr. Van Schassen returned to his former position with the textile company.

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Contains important mineral elements blended with COBALT, MANGANESE, ZINC, BORON, IRON, COPPER, STABILIZER IODINE and other trace minerals in carefully calculated proportions to supply necessary mineral nutrition.

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BUY and SELL through WANT ADS

Broiler Contest Set For Delaware Juniors

NEWARK, DEL. — Delaware's junior broiler growers—age 10 to 19—will get their annual opportunity to match feeding and flock management techniques with their elders, it has been announced by the Delaware Poultry Improvement Assn.

On April 2, the Delaware Junior Broiler Program will get under way. The six top winners in the contest will get to display their birds at the Delmarva Chicken Festival in the summer where they can be compared with the best that the commercial broilers of the peninsula can put on exhibit.

Silas McHenry, University of Delaware poultry specialist, is directing the program for the poultry association.

Each boy or girl entering the program starts off with 50 wing-banded chicks which are delivered on April 2. When the birds reach market age, each boy or girl entered chooses six cockerels for dressing, judging and displaying. Winner of the contest gets $25 plus a trophy.

According to Mr. McHenry, the association has arranged for boys and girls entering the contest to go to training meetings and to get other special help and supervision in learning to raise a good flock and keep good cost records.

Feed Topics Included On Rutgers Program

NEW BRUNSWICK, N.J.—New research findings on dairy and meat animal production will be featured in a livestock and dairy open house to be held in the dairy building at Rutgers University on March 21.

Bruce R. Poulton, assistant professor of dairy husbandry, said that it is being planned especially for feed men and others who serve the dairy and meat animal producers.

Following a welcome by Dean William H. Martin at 10 a.m., T. E. Milliman, former research head of the Cooperative Grange League Federation at Ithaca, N.Y., will speak on "Where Is the Livestock Industry Headed in the Northeast?" Dr. J. W. Bartlett, chairman of the department of dairy industry, will describe "Headaches and Heartaches of a Livestock Breeding Program."

The afternoon program will include a discussion of "Antibiotics in Feeding Dairy Cattle, Beef and Sheep," by Dr. Ralph Elliott of Lederle Laboratories Division, American Cyanamid Co., Pearl River, N.Y., and "Newest Developments in Feeding Livestock," by G. W. Vander Noot, chairman of the animal husbandry department and Mr. Poulton. The meeting will close with a film showing "Feeding and Digestion in Ruminants."

Allied Offices

SAN FRANCISCO—Allied Chemical & Dye Corp. has announced consolidation of its San Francisco sales offices in new quarters at Russ Bldg., 235 Montgomery St., San Francisco 4. The telephone number is Yukon 2-6840. The change, effective Feb. 27, is for eight Allied operating divisions, including Nitrogen Division.

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● Solve YOUR rat problem with amazing WILNITE—the world's FIRST successful rat killer combining miracle WARFARIN with a MEAT base. Rats just LOVE the meat—treat them to a "last meal" of WILNITE! It's GUARANTEED!

● WILNITE'S deadly efficiency comes from the combination of appetizing meat and fatal poison. Exhaustive tests at one of the nation's leading universities have proven rats eat MORE meat in LESS time than they do grain. WILNITE licks bait shyness—kills FASTER! Packed in sanitary cans—no bug contamination.

● Miracle WILNITE saves you money—kills MORE rats with LESS bait! No costly feeding equipment to buy—feed WILNITE right from the can!

● GUARANTEED! Try WILNITE in your building. Follow directions closely. If you're not COMPLETELY satisfied that WILNITE has solved your rat problem, your money will be cheerfully refunded.

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We have an extremely attractive proposition to offer WILNITE distributors in your area. Write for full details.

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FIRST PUBLIC STORAGE
SOFT FEED INGREDIENTS
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OFFICERS—Walter C. Ronk, Barnard & Leas Mfg. Co., Cedar Rapids, Iowa, was reelected president of the Grain Processing Machinery Manufacturers Assn. at the recent annual meeting of the organization held at the Edgewater Beach Hotel in Chicago. He is pictured above on the left. Others are, left to right: R. R. Strong, Strong-Scott Manufacturing Co., Minneapolis, elected vice president; Harold Alsted, Sprout, Waldron & Co., Inc., Muncy, Pa., named to the board of directors, and E. P. McCreery, C. O. Bartlett & Snow Co., Cleveland, also named a director. In the second picture from the left is James P. Corcoran, Mill Mutual Fire Prevention Bureau, Chicago, a convention speaker. The group shot on the right shows, standing, left to right: Koert S. Voorhees, Universal Hoist & Manufacturing Co., Cedar Falls, Iowa, chairman of conventions and exhibitions; C. Robert Myers, Myers-Sherman Co., Streator, Ill., public relations committee; Mr. Alsted; George F. Thomas, Prater Pulverizer Co., Chicago, liaison feed school committee; Mr. McCreery, and George Sprackling, Daffin Manufacturing Co., Lancaster, Pa., membership. Seated, left to right, are: Raymond J. Walter, New York, secretary-treasurer; Mr. Ronk, and Mr. Strong.

Camera Views of the News

TOP TONNAGE DEALERS—Several Victor Feed dealers received trophies and merchandise prizes at a recent Crete (Neb.) Mills dealer meeting in Des Moines, Iowa. Pictured are Iowa territory top tonnage winners in each feed classification. Standing, from left to right, are Paul Stevens, Wilmer Lary and John Powers, all of Farmers Supply Co., Elwood, Iowa. Seated are Carl and Harry Sorenson of the Blair (Neb.) Flour Mills.

WINS SWIFT AWARD—Preparing to present the "Feed Sales Manager of the Year" plaque to H. W. King (left), Swift & Co. feed sales manager in St. Boniface, Manitoba, is Tom R. Colvin, general sales manager of Swift's feed department. Each year the award is made to the feed district sales manager who acquires the most points on the following: Percentage of feed quota sold, advertising activities and the amount of aid given to feed dealers in helping them service feeders. Salesmen in the winning district received desk sets.

TOP VICTOR SALESMEN—Victor Feed sales representatives who were honored by Crete (Neb.) Mills recently are shown above. Left to right are C. A. DeMilt, Charles Hoppe, Harold Brinkopf, George Sisson, R. T. Kernick, Leonard Martin, Vince Hascall and R. L. Deeringer. Awards for their sales efforts were made at the annual meeting of the company in Lincoln.

WASHINGTON CONVENTION—Here are some pictures from the recent convention of the Washington State Feed Assn. in Yakima. In the first picture are some of the speakers who were on a retail training panel. Left to right, are Fred Trullinger, Portland (Ore.) Seed Co.; William Marsh, William Marsh Associates, Portland, and John Bolan of Charles H. Lilly, Seattle. Another feature of the convention was a panel on feed mill production, and members of the panel are shown in the second picture. Left to right, Eric A. Carlson, Ralston Purina Co., St. Louis; Robert Adelman, Adelman Machinery Co., Seattle; John Heimovics, J. B. Ehrsam & Sons Manufacturing Co., Enterprise, Kansas; Curt Lindley, Centennial Mills, Inc., Seattle; Harold Herzog, Fisher Flouring Mills Co., Seattle, and Oak Smith, Wenger Mixer Manufacturing Co., Sabetha, Kansas. W. E. Glennon, president of the American Feed Manufacturers Assn., Chicago, was a featured speaker at the meeting, and he is shown in the third photo as he talked on producer financing.

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GROW

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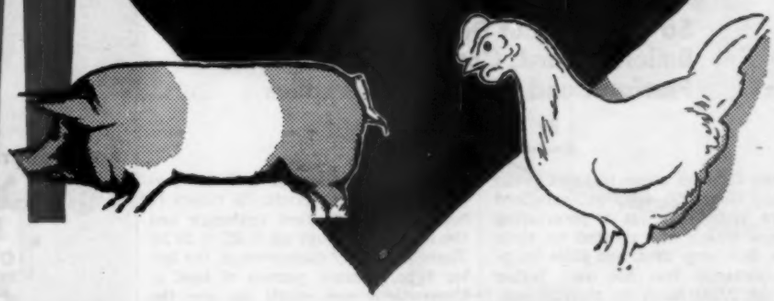

DR. SALSBURY'S SUPERIOR ADDITIVE

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YOU'LL PROFIT through increased sales and repeat business from *more* satisfied customers when your feeds contain highly effective, palatable, 3-NITRO because . . .

FARMERS PROFIT. Feed containing 3-NITRO gets pigs started fast and continues to stimulate growth *right* through to market. They get fewer runts, healthier hogs, better uniformity, finer finish, lower feed costs. Controlled, exacting tests prove it!

With 3-NITRO in your feed you can claim faster growth on less feed per pound of gain, on the average. 3-NITRO helps prevent losses due to scours—reduces "disease burden"—actually improves feeds already supplemented with antibiotics.

POULTRY RAISERS PROFIT,TOO. Chick starters, growing, and laying mashes containing 3-NITRO help chicks mature earlier. Pullets produce eggs up to 15 days sooner. Hens are better developed and have added vitality to lay as many as 12 extra eggs per bird.

PICK UP PLUS PROFITS. Simplify your problems. Use palatable easy-to-mix 3-NITRO in all your pig and poultry starting, growing, finishing, or laying feeds. Offer superior feeds containing 3-NITRO and watch your profits grow. Write for feed manufacturers prospectus.

DR. SALSBURY'S LABORATORIES Charles City, Iowa

recommend, promote, and profit from Dr. SALSBURY'S complete line of poultry medicines

LOTS OF READERS—The "buy—sell—swap" board maintained by Bion Shepard, manager of the Clinton (Conn.) Grain Co. gets a lot of attention from both readers and those who list items. Mr. Shepard takes the pains to rewrite all the items listed with a heavy pencil so that the reading matter will be clearly legible to customers and prospects.

Feed Customers Like Convenience

So Connecticut Dealer Provides Bulletin Board, Covered Loading Platform and Allied Farm Supplies

By Al. P. Nelson
Feedstuffs Special Writer

When farmers come to the Clinton (Conn.) Grain Co. they get excellent service and find a lot of interesting displays which are slanted to their needs. Not only that, but Bion Shepard, manager, has his own laying flock of 2,500 hens, so that if customers want to know about poultry feed and management problems, Mr. Shepard has the experience and qualifications to help solve them.

This store is one of five retail feed stores in the area, owned by R. Davis & Sons, Inc., New Haven, Conn., and Mr. Shepard has managed the Clinton store for many years. He takes pride in keeping his store neat and clean. Both outside and interior displays are outstanding and produce extra sales.

The exterior displays consist of feeds, garden tools, tractors for gardens, latticework, fertilizers and other merchandise. Thus customers are exposed to the sight of a great deal of seasonal merchandise.

"We've got a partly covered loading platform and this makes it possible to display out there most months of the year," says Mr. Shepard. "The merchandise we show gets customers asking questions about it, and lots of times a sale results. It isn't much trouble to get the display out every morning and in at night."

Inside the store, Mr. Shepard has some fine wall displays and also several well placed islands. He caters to both the volume feed customer and the fellow who buys up to 25 to 50 lb. There are many customers of the latter type, because parcels of land in Connecticut are small as are the farms. However, there is a great deal of poultry raising in the area, both layers and broilers. On five to 10 acres of land many hens and broilers can be raised.

The store employs five men, including Mr. Shepard, and there are three routes operating. Mr. Shepard does a lot of the route selling, as does one other man. Many poultry raisers in the area, for example, have standing weekly orders on feed and depend on Clinton Grain Co. to keep the bins full at all times.

"We've got some laying flocks where there are 3,000 to 7,000 layers," reports Mr. Shepard, "and some of these customers buy five tons of feed at one time. We help our customers with their feed and disease problems, and we also call on our feed manufacturers' service men now and then. They are always available for emergency work on poultry farms. Farmers like this type of service."

"Buy—Sell—Swap" Board

In his showroom Mr. Shepard has a "Buy—Sell—Swap" bulletin board

It pays to DISPLAY
PILOT BRAND
OYSTER SHELL

Featured on 70 outstanding Radio Stations and in leading Farm and Poultry Journals. PILOT BRAND Oyster Shell has been Nationally Advertised for over 30 years.

Through this consistent publicity, your customers know all about PILOT BRAND. They know of its superior, dependable quality—its pure, clean, 100% usability—its low cost per usable pound. They're told to "Look for the Bag with the Big Blue Pilot Wheel."

Cash in on this universal customer-acceptance. Always stock PILOT BRAND Oyster Shell. And keep a couple of bags of PILOT BRAND prominently displayed in your store. That's the way to get your full share of the profitable year-'round PILOT BRAND business.

ORDER FROM YOUR DISTRIBUTOR—OR WRITE TO US

FOR POULTRY
PILOT BRAND OYSTER SHELL
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Genuine Cane BLACKSTRAP MOLASSES
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LARGEST IMPORTERS OF BLACKSTRAP MOLASSES IN THE UNITED STATES
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Cereals of Quality Since 1862
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use EHRSAM
feed mill equipment
for
dependable and economical performance

Experience is your best guide, when you select equipment for your feed plant.

Many operators have found by actual experience that Ehrsam machinery and equipment does the job fast and well at minimum expense. Ehrsam's continuous research program assures you of equipment designed to meet modern standards, for the most efficient, low-cost operation.

Ehrsam sales engineers are eager to help you solve your planning and operating problems. Please feel free to call them at any time.

THE J. B. EHRSAM & SONS MFG. CO.
ENTERPRISE, KANSAS

which is very neat and attractive. Farmers like this service and frequently read it for items to buy. Many also bring in items to list on the board.

Mr. Shepard usually writes out any advertisement which the farmers bring to him. He uses a heavy, black pencil so that the lettering stands out clearly. In this way farmers can see it easily and are encouraged to read the items posted.

"It is surprising how customers will consult that board regularly," says Mr. Shepard. "They know the items are up to date and that means something. You've got to keep a board like this clean and attractive, otherwise it won't get too much attention. But it's a service many farmers like and also expect in a feed store."

Extra Income

This feed store is tapping the garden supplies market quite heavily. In fact its delivery trucks carry the copy "all garden and farm supplies" and this indicates how heavily the store features garden items. This part of Connecticut has many urban dwellers who have one fourth to two acres of land. On such plots of ground they have extensive lawns, gardens and some orchards. The owner of such a piece of ground needs seeds, fertilizer, insecticides, spraying materials, garden and lawn tools, peat moss, and he may also have one or two dogs and other pets.

The Clinton Grain Co. carries all the above items, in addition to power mowers and small garden tractors. Because there are so many people who have need of garden supplies, it pays to try to capture a share of this market, declares Mr. Shepard.

"There is no reason why a feed store in a congested area like this cannot get the major share of this business," says Mr. Shepard. "It fills in very well, and people naturally expect an alert feed and grain store to handle such items. We find our dog food and accessories, too, sell very well. The number of pets appears to be increasing in this area."

Mr. Shepard says that his own poultry operation on a 12-acre tract of land helps him to sell more feed. He is constantly familiar with laying hen management and is able to advise his customers authentically. He raises about 2,500 laying hens annually, and takes care of the feeding himself, morning and night. In addition, his son Bion, Jr., age 16, and daughter, Dorothy, 12, usually do all the egg grading and other chores. Mr. Shepard has been raising laying flocks for more than 10 years and finds that it is a profitable family enterprise.

This store has a large selection of fertilizer, insecticide, feed and other folders and customers take and read many of them. Quite a number of people who have small flocks and gardens like to educate themselves on new products and have the time to do this studying. The circulation of these sales folders among so many customers stimulates extra sales for this feed firm.

Newspaper advertising of the Clinton Grain Co. is usually done in a cooperative ad with other stores of R. Davis & Sons, Inc. The organization also does some direct mail advertising, with the aid of feed and other manufacturers.

Robert Mill Retires

CHICAGO—Robert C. Mill has retired from the U.S. Department of Agriculture after more than 41 years of service in the grain division. He was inspection supervisor in charge of enforcing provisions of the U.S. Grain Standards Act prior to his retirement.

Mr. Mill has been succeeded by Howard H. Woodworth, who has been transferred here from the grain inspection service at Beltsville, Md.

Specialist Advises Holding Down Protein

MADISON, WIS. — Dr. Milton Sunde of the University of Wisconsin poultry department says that one way to help keep egg production profitable is to lower the pre-laying cost for each bird. And, he says, holding the protein in the pullet ration to 15% while they are growing will reduce this cost.

This will cut feed costs for the first 20 weeks from 85 to 70¢ a bird, Dr. Sunde says.

He says the lower protein diet doesn't hurt egg production or increase the amount of feed used per dozen eggs. Eggs will still hatch all right, too, according to the Wisconsin specialist. He goes on to say that pellets on the low-protein rations are usually smaller than they should be at housing time but that by 28 weeks, they are up to size.

In his comments on this subject, Dr. Sunde notes that most hens lose value during the laying year. It's common to have $2.50 invested in a pullet when laying starts and to sell her for only 50¢ at the end of the season, he continues. Good egg production must make up the $2 loss. If a hen lays 180 eggs a year (15 doz.), each dozen must pay for about 13¢ of this drop in value.

But another way to help keep egg operations profitable is to lower the $2.50 pre-laying cost, Dr. Sunde notes, commenting on the ration.

Douglas Issues Data On Grain Sanitation

NORTH KANSAS CITY, MO.—Douglas Chemical Co., North Kansas City, Mo., has issued a new 8-page booklet dealing with grain sanitation. The booklet is entitled, "Meeting the Challenge of America's New Grain Sanitation Requirements."

Problems facing both the farmer and the commercial elevator man are discussed in the booklet.

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A HIGH QUALITY PROTEIN REPLACEMENT FOR ANIMAL Feeds...

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The new TORAFEED booklet includes complete details about the revolutionary new Economy Supplements reported on at Iowa State College. In this and other supplements Plasmolized TORAFEED has been added to increase roughage conversion, lower feed cost of gain and stimulate and maintain appetite.

TORAFEED is primary grown Torula Yeast, processed exclusively for the feed and allied industries. It is the product of 70 years of Red Star research and development in the field of fermentation and nutrition.

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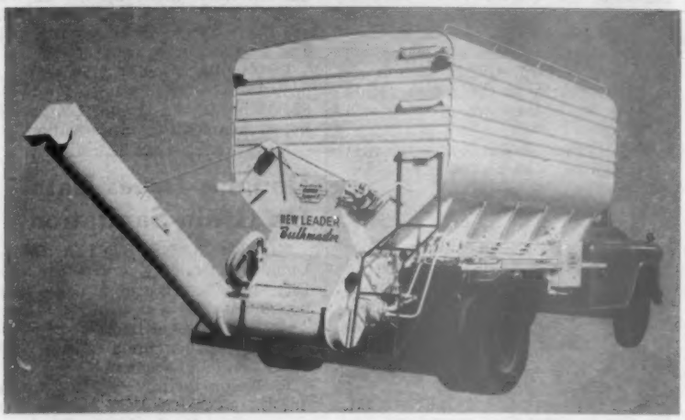
"NEW LEADER" BULKMASTER
HI-MOLASSES DAIRY FEED BODY



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Air-Unloading BULKMASTER

BULKMASTER with Full Hydraulic Control

Self-Unloading Transports

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HIGHWAY EQUIPMENT CO., Inc.
616 D Ave., N.W., Cedar Rapids, Iowa
Manufacturers of The World's Most Complete Line of Spreaders and Bulk Material Delivery Equipment

WE'LL GET YOU THE CUSTOMERS

A strong, year around advertising program keeps FLORIDA CITRUS PULP before Dairymen from Maine to Florida. This program is designed to pull inquiries which are passed along to Dealers.

Florida Citrus Pulp

FLORIDA CITRUS PULP is a carbohydrate concentrate that is really selling and the demand is growing. You can add FLORIDA CITRUS PULP to your line with confidence, knowing that it has an outstanding customer acceptance necessary for a good money maker. Write today for information on a Dealership.

CITRUS PROCESSORS ASSOCIATION
P.O. BOX 1459, WINTER HAVEN, FLORIDA

Midwest Suffers In Change of Egg Marketing Patterns

CHICAGO—A significant change in the marketing patterns for shell eggs has occurred in the last 25 years, with the Midwest losing considerable ground, it is pointed out by Charles E. Hughes, Armour & Co. marketing specialist, in a recent article in Armour's Analysis.

A quarter-century ago California rail-shipped thousands of cases of eggs annually across the country to the New York market—but no more. The build-up of human population, jumping 49% between 1940 and 1950 alone, has transformed the Pacific Coast region from one of surplus production to something that hovers on the deficit side.

Population in the North Atlantic states increased 9% during the same decade. This growing consumer market encouraged a build-up in numbers of hens and pullets on farms, Mr. Hughes points out. The North Atlantic states showed an 85% increase in hen and pullet numbers between 1925 and 1955, while the western states registered a 38% gain.

The total production from this increased poultry population was augmented by the rising productivity per bird, with the U.S. average jumping from 112 eggs in 1925 to an estimated 187 in 1955. This more than took care of the growing consumer market for eggs, and offset the decline in shipments from the Far West.

Midwest Falls Behind

Although the human population between 1940 and 1950 increased somewhat in the Midwest (14.2% for the East North Central and 4% for the West North Central states), this rise was not rapid enough to make up for the vanishing coastal markets.

The Midwest still supplies some eggs for both coastal areas, but the midwestern producer has to buck the twin obstacles of high transportation costs and quality deterioration. One saving factor, according to Mr. Hughes, has been a virtual status quo in the number of hens and pullets on farms between 1925 and 1955 in both the East North Central and West North Central states.

"Few people are fully aware, even yet," writes Mr. Hughes, "of the impact of all these changes on the midwestern egg market. Prior to 1945, an estimated 65% of the eggs sold on coastal markets came from midwestern flocks, while today the percentage has slumped to between 15 and 25%.

"This has left the midwestern states

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Let ULTRA-LIFE Take The Load From Your Shoulders!

Yes, let ULTRA-LIFE take a load from your shoulders. The profit-proved Ultra-Life Program is a complete program for the feed manufacturer: Ultra-Life Vitamin — Trace Mineral products for feed fortification, free formula service, free tags and registration help. And no one needs to tell a feed manufacturer how costly tags are, and the headaches involved in making up registrations. Ultra-Life furnishes you tags free of charge, and prepares registration papers for you.
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CHECK THESE ADVANTAGES
- Light Weight sturdy construction
- No Lifting Required—loading end comes down to floor
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Take it along with you in your truck—use it in a stairway or in a box car. The Seedburo Model "R", lightweight and handy, Aluminum Hytrol Conveyor is built for complete portability, easy handling and a long life of efficient, low-cost service. Attachments available include hydraulically operated adjustable undercarriage and a gravity feeder section. Be sure to write for literature and prices.

"World's Leading Supplier of Grain Testing Equipment for Over 40 Years"

SEEDBURO
(SEED TRADE REPORTING BUREAU)
EQUIPMENT COMPANY
Dept. FS-3 618 W. Jackson Blvd., Chicago 6, Ill.

in somewhat of a dilemma. Through more diligent quality efforts and enforcement of egg laws, they can hold onto what remains of their outside markets, or even increase it a trifle. However, the bulk of their shell eggs must be sold in midwestern egg markets, and these markets can't absorb the surplus of spring production."

Shipping Revolution

There has also been a shipping revolution, according to Mr. Hughes, with profound changes having occurred in the means of transporting shell eggs from buyer or wholesaler to the retail markets. Eggs are moved today largely by truck. Prior to World War II it was mainly a rail operation.

The reasons, according to Mr. Hughes, are several. Most important, hauling time is cut by an average of 25 to 30%. And on a long haul, like between midwestern points and Miami, Fla., the running time is reduced from six to seven days to only four.

Another reason, he says, is the maintenance of improvement in truck design to insure quality. The trade now has insulated trucks which are cooled to 50° F. or lower by ice or motor-driven fans in summer and warmed to between 35 and 40° during extremely cold winter weather. Experimental humidity controls are in limited use.

Still another reason is flexibility. For example, a truck can make two or three pick-up stops and an equal number of deliveries all in a day or so. It can pull right up to the dock of an egg customer. When rail-shipping, a truck would still be needed to unload the car on the siding and haul to the customer's establishment. And this involves extra handling.

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Feed Service Bulletin Board

Helpful Notes on Feeding and Management for Feed Men and Their Customers

Lean Hogs Can Grow Fast

Recent figures from an Illinois swine herd improvement association show that lean hogs will grow as fast as fat hogs.

G. R. Carlisle, extension livestock specialist at the University of Illinois, reports that among the hogs that members of this association weighed and measured backfat were 73 boars and gilts in two herds, one purebred Hampshire and the other purebred Chester White.

The boars were divided into one group that weighed 220 lb. and more at 180 days and another that weighed less than 220 lb. The gilts were divided on the basis of whether or not they weighed 210 lb. at 180 days.

The heavy-weight boars that averaged 237 lb. at 180 days had an average backfat probe of 1.29 in., while the group of smaller boars averaging 202 lb. at 180 days had an average backfat probe of 1.37 in.

In the two groups of gilts, the heavy animals averaged 223 lb. at 180 days and measured 1.56 in. of backfat compared with 1.54 in. for the lighter group that averaged 191 lb. at 180 days.

Mr. Carlisle points out that the backfat measures were not greatly different and that the fastest growing hogs were just as lean as the slower growing animals.

◆

Selecting Chicks for Layers

Since the general purpose chicken is out of the picture now, Dr. W. F. Krueger of the Texas A&M College poultry department suggests that a poultryman select birds to produce market eggs, hatching eggs or broilers.

Here are some things he suggests a poultry producer should look for in selecting a good market egg strain.

1. Select a strain that lays white eggs because that is the market preference in Texas.
2. A strain or cross should average around 240 eggs or more per year.
3. Select birds that lay eggs of reasonable size. Texas markets like a large egg weighing around 24 to 25 oz. per dozen.
4. Select a strain that has good livability. Good living strains and crosses are available.
5. Select those birds that will weigh from 3¾ to 4¼ lb. when grown. Feed is 60% of the bill.
6. Get hens that lay eggs with a lot of thick white, and also as free of blood spots as possible.

Texas has many good breeders and it should be only a matter of some checking around to find the strain or cross to meet these requirements, Dr. Krueger says.

◆

Feed Wastage Is Costly

No feed can produce the degree of efficiency its particular formulation merits when management practices permit feed wastage at the hoppers, according to Dr. L. N. Gilmore, Maritime Milling Co., Inc., writing in a company publication, Mari-Times.

Even a small amount of feed loss that seemingly goes on unnoticed for extended periods can result in significant differences in returns over feed cost and may place the particular feed a dealer is selling in a bad light.

Dr. Gilmore points to a University of Maryland experiment in which feed wastage was correlated with different levels of mash as placed in the hoppers at feeding time. Here are the results:

Feed in hoppers	White Leghorns % wasted	New Hampshires % wasted
Full	45	29
¾ Full	15	7.4
½ Full	4.9	2.1
¼ Full	2.0	1.3

According to the Maryland data, Dr. Gilmore says, a practice of "half-full filling" of hoppers can produce significant monetary losses through feed wastage and can dim the actual efficiency of the feed to the point of entertaining skepticism and perhaps rejection.

Let us take the case of a feeder of "broiler" chicks who practices filling hoppers to the half-full mark,

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Calcium (%), Total	34.0% min.	34.0% min.
Fluorine (%), Total	0.17% max.	0.145% max.

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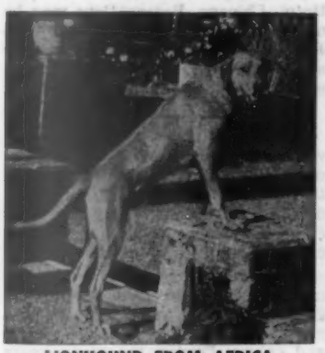
he says. Let's say that at marketing time his birds averaged 3.2 lb. and that, according to the actual record of feed hauled into the pen or pens, figured out to constitute an average consumption of 8.5 lb., equivalent to 2.66 lb. of feed consumed per pound of live weight. If a 2.1% wastage prevailed, each bird actually consumed 8.32 lb. of feed and the actual efficiency of feed utilization is 2.6 rather than 2.66. Projected to 1,000 birds actual feed consumed would equal 8,320 lb. rather than 8,500 lb., indicating wastage of 180 lb. of feed.

Now, he continues, let us take the case of 1,000 layers that are wasting 2.1% of their feed, and let's assume the records show feed placed in hoppers averaged 60 lb. per bird from which 15 doz. eggs were produced. This is equivalent to 4 lb. of feed per dozen eggs gathered. Based on a calculated wastage of 2.1%, each bird actually consumed 58.74 lb. (a loss of 1.26 lb.) that indicates an actual production of a dozen eggs for each 3.92 lb. of feed consumed. Projecting to 1,000 layers, the loss through wastage equals 1,260 lb.

Dr. Gilmore urges that feed dealers reduce this wastage by encouraging the use of one or more extra hoppers in each pen and prevailing upon each feeder to keep the feed level below the half-full mark.



LIONHOUND FROM AFRICA NOW THRIVES IN MISSISSIPPI

Swahili's Jeff Davis is a Rhodesian Ridgeback Lionhound imported from South Africa by M. B. DePass, Col., U.S.A. (retired) of Waveland, Miss. In Africa, these dogs are used in big-game safaris to bay lions for the hunter. This hound was awarded two champion challenge certificates in Africa, and won four first prize awards, miscellaneous class, in Southern state dog shows in 1954. Col. DePass writes: "When returning from Africa recently with six Rhodesian Ridgeback Lionhounds, I doubted that I was wise. They had been raised on fresh, raw beef, which I could not afford in America. Vitality Meal and Kibbled Biscuits have solved my problem. A litter whelped in late March is the best yet!" (Letter on file)

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Creep Ration Is Aid to Lambs

A Purdue University extension sheep specialist, Henry Mayo, recommends that lambs be given access to a creep ration when they are 10 days old. Lambs have their teeth by that age and are able to consume such a ration.

Creep feeding, according to Mr. Mayo, will help give lambs born before March 1 an excellent chance to become money-making, market-topping, 80 to 100 lb. animals by July 1.

Many farmers separate ewes that have given birth to lambs from those that have not lambed in order that feed for the mother ewes can be increased. This extra feed will enable the ewes to give more milk—the key to fast-gaining lambs. Mr. Mayo says lambs gain in proportion to the amount of milk they receive.

Lambs born eight weeks before pasture should weigh 50 lb. by the time the pastures are at their peak. At that time they can utilize the pasture plus the extra milk from their mothers, the Purdue specialist states.

Graded Cattle Sell for More

Feeder cattle command better prices if they're graded into uniform lots before being offered to buyers, according to Paul S. Pattengale, extension livestock specialist at Colorado A&M College. Most feeder cattle buyers look for uniformity in both type and size, he says. Failure to sort feeders according to buyers' wishes may result in a lower price for the entire lot.

He points out that many cattlemen prefer to sell their calves on a straight-run basis, thinking the good ones will help sell the poor ones. "However," he says, "it doesn't work out that way. Poor-quality calves merely pull down the price on the good ones."

Some cattlemen complain their cattle lose too much weight when worked into uniform lots. However, if they're handled quietly during sorting, then given a couple of days to fill, that weight is put back on before they're sold, Mr. Pattengale says.

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Economist Outlines Cattle Numbers, Price Situation

URBANA, ILL. — Price advances for beef cattle are not likely until after Easter, according to Prof. L. H. Simerl, agricultural economist at the University of Illinois.

Surveying the general cattle situation outlook, Prof. Simerl says the recent situation is much the same as a year ago. Numbers of cattle on farms and in feedlots are just about the same, in proportion to population, as they were a year ago.

So far this year, he continues, farmers have marketed cattle faster than they did in the same weeks last year. During the first six weeks of 1956, beef output was up 10% from a year earlier.

The more rapid rate of marketing this year is in line with the report of cattle on feed on Jan. 1. That report showed that farmers had 2% more cattle in feedlots than a year earlier, the cattle were heavier, and farmers intended to market them earlier than last year.

Large market supplies, plus restricted demand during Lent, seem likely to postpone price advances until after Easter, Prof. Simerl said.

Reviewing and backgrounding the cattle situation, he brought out these points:

Increase Is a Surprise

Cattle numbers crept up 1% during the past year. The increase, though small, came as a surprise, since farm statisticians had thought that the large slaughter in 1953 had checked the climb in numbers that began back in 1950. With cattle numbers at another new high, we can expect beef production in 1956 to equal or exceed the record output of 1955.

The USDA reports cattle on farms Jan. 1 at 97,465,000 head. This number is almost a million more than the revised estimate of 96,592,000 head on farms a year earlier. (New information, available from the 1955 Census of Agriculture, caused the department to raise its estimate for a year ago by over a million head.)

Cattle numbers in the U.S. tend to run in waves or cycles. Farmers build up their herds for 5 to 10 years and then sell off. Beef production is low during the build-up years; then it increases sharply when farmers increase their sales of cattle.

The present build-up of cattle numbers began in 1949. At the beginning of that year, farmers and ranchers had only 76,830,000 cattle and calves. During the seven years since then, farmers have increased their herds by 21 million head, or 27%.

Output of beef and veal shrank to 9.9 billion pounds in 1951. In the four years to 1955, it increased to 15.3 billion pounds, or 54%.

While our beef supply jumped 54% in four years, the population crept up only 7%. The supply of beef and veal was only 62 lb. per person in 1951, but it was up to 91 lb. in 1955.

The small supply of beef in 1951 came at the time of the inflation that was associated with the Korean War. Beef cattle sold for $30 to $40 cwt. and even higher.

The big jump in beef output came in 1953. Cattle prices hit the skids as markets climbed 20, 25 and 30 percent over year-before levels. The year 1954 was a good one for cattle feeders, and the favorable price continued into early 1955. Then further increases in beef supplies, plus more competition from pork, eggs and poultry, sent cattle prices on a downward trend.

GFDNA MEETING SET FOR SEPT. 9-11

CHICAGO—The sixtieth anniversary meeting of the Grain & Feed Dealers National Assn. will return to the city in which the first meeting was held in 1896. This year's meeting will be Sept. 9-11 at the Morrison Hotel, Chicago. Reservations may be made directly with the hotel or with John C. Bowden, secretary-treasurer of the GFDNA, 100 Merchants Exchange Bldg., St. Louis 2, Mo.

Beardstown Mills Co. Holds 'Turkey College'

BEARDSTOWN, ILL.—Three hundred thousand turkeys were represented at a meeting of turkey growers recently as the annual Critic "Turkey College" was conducted by Beardstown (Ill.) Mills Co. Nearly 100 turkey raisers from Illinois, Iowa and Missouri were present, discussing and studying the "ways and means" of improving turkey production.

Highlight of the meeting, following a turkey dinner at the evening session, was the presentation of certificates of merit and special plaques to individual turkey growers The awards were made on the basis of records submitted to the Beardstown Mills Co. and judged by a staff from the University of Illinois.

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Wheat, Feed Grain Prices Expected To Hold Fairly Steady During March

MANHATTAN, KANSAS—Fairly steady wheat prices and steady to slightly higher feed grain prices are expected during March, according to agricultural economists of Kansas State College.

Although loans made for the month ending Jan. 15, 1956, were larger than a year earlier, the total as of that date was 256 million bushels compared with 381 million bushels on the comparable date in 1955. It appears that the quantities of free wheat available for the market will be as large as in 1955, the report states.

The major factors influencing wheat prices during March will be the support program, the quantity of free wheat available, new crop conditions and prospective government programs, the report continues. Stocks of wheat in all positions as of Jan. 1, 1956, totaled 1,535 million bushels, the largest on record for Jan. 1, and 4% larger than a year earlier. Farm stocks were slightly below last year and the lowest since 1950. Off farm stocks were 6% larger than a year earlier and a record for the Jan. 1 date.

Fairly steady prices are expected during March. But the announced lower support level for the 1956 crop will be a depressing influence as the new season approaches. Currently price support and prospective government programs under consideration by Congress are the dominating influences in the market.

Their report forecasts that supplies of feed grains appear more than adequate for the feeding season ending Sept. 30, 1956, and an increase in carry-over is expected. The large volume of 1955 feed grains placed under price supports and smaller receipts of corn contributed to strength in feed grain prices during January. Uneven distribution of the available supply resulted in higher prices in drouth areas than is usual. This has probably been offset in Kansas somewhat by reduced numbers of cattle and sheep on feed.

The U.S. Department of Agriculture recently announced minimum price-support rates for 1956 feed grain crops. The nation's minimum support for corn is $1.40 bu., 18¢ less than the 1955 rates. The national average support rates for the other major feeds are: Oats—59¢ bu., 2¢ less than the 1955 support level; barley—93¢ bu., 1¢ less than 1955; and grain sorghums—$1.80 cwt., 2¢ more than last year.

Thus, with the exception of corn, 1956 support prices will exert little downward pressure on prices, the report points out. The usual seasonal pattern is for prices of the major feed grains to increase seasonally during the spring months. Although feeding demand is strong, large supplies suggest that the seasonal increases will be less than usual. Although feed grain exports are expected to increase, price supports and prospective programs under consideration by Congress currently dominate the feed grain market, the report concludes.

Earl R. Reeves

Ray Ewing Co. Names Eastern Representative

PASADENA, CAL.—Earl R. Reeves has been appointed eastern sales representative of the Ray Ewing Co., effective March 1, it has been announced by Jack Plonsky, executive vice president of the vitamin and feed supplement firm.

Following a briefing period at the Ray Ewing main offices in Pasadena, Mr. Reeves will set us his headquarters somewhere east of the Mississippi River.

A graduate in organic chemistry from Colorado State College, Mr. Reeves has had wide experience in the vitamin and feed supplement field, having been associated with some of the country's leading supplement firms. He previously has been associated with the Lederle Laboratories Animal Feed Division, American Cyanamid Co.; Miller & Bushong, Inc., of Rohrerstown, Pa.; Specifide, Inc.; White Laboratories, Inc., and the Farmers Union Marketing Assn. of Denver, Colo.

Merchandising Contest Winners Announced

MOUNT MORRIS, ILL.—Winners in the second annual merchandising and display contest conducted by Hatchery & Feed magazine were announced this month.

The six award winners, who all received trophies and plaques and a total of $500 in cash awards, were as follows:

Feed Dealer Classification: First place, Tri-State Feed & Seed Co., Shreveport, La.; second place, Farm-Air Co., Princeton, Ill.; third place, Cooperative Elevator, Alta, Iowa.

Hatchery Classification: First place, Northern Seed & Nursery Co., Aberdeen, S.D.; second place, Norfolk (Neb.) Hatchery; third place, Key's Hatchery, Delavan, Ill.

The contest was open to hatcherymen and feed retailers throughout the U.S. Their entries consisted of descriptions and pictures of their work in merchandising and displaying chicks, feed, health products and equipment during 1955.

NEW ILLINOIS FEED MILL

MAHOMET, ILL.—The Mahomet (Ill.) Feed & Farm Supply has opened for business with Culver Slocum and Dan Tharp as proprietors. The firm recently completed its new feed mill.

Length of Starvation Period Before Killing Broilers Is Studied

AMHERST, MASS.—"How long before killing can birds be taken off feed without affecting their eviscerated weight?" is a question that faces every broiler grower who does not want to waste feed by feeding longer than necessary.

Extension workers at the University of Massachusetts say that this question is pretty well answered in an abstract in Poultry Science covering work at the Louisiana Experiment Station.

At the station they used 50 males and 50 females, repeating the experiments twice—giving a total of 300 birds. The birds were weighed alive and placed in battery brooders, and

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A LIVE YEAST CULTURE — for 4-footed animals and poultry. Supplies all known B Complex Vitamins including B_{12} plus other nutritional factors. Easy to add to any formula.

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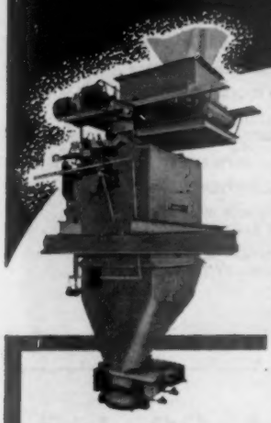
15 50-lb. BAGS of Feed Per Minute

—ACCURATE TO WITHIN 0 TO 3 OZ.—

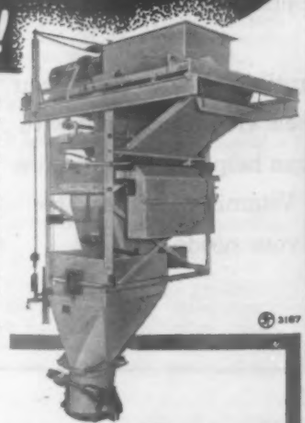
with a Richardson!



Richardson's new design GA-38 enclosed bagging scale or FPA open type bagging scale accurately and automatically handle weights from 25 to 100 lbs. But with the recent trend toward 50-lb. bags, the big news is that advanced *15 BAG OUTPUT!* What's more, you can do *even better* with only a small sacrifice in accuracy. Just what you need to step up your daily tonnage!

Why not find out why Richardson scales have been part of profitable feed mill operation for over 50 years? With a Richardson you get the fastest, most accurate, most versatile bagging scale on the market, and also the simplest to maintain.

Send for complete information on the GA-38 or the FPA—the modern way to profitable production.



3107

GA-38

Belt fed and with pneumatic gate assist for 25 lb. weighings, the GA-38 economically handles all dry grains, crumbles, pellets, range cubes (to 2½"), 16% molasses feeds and similar products... a workhorse for practically *all* bagging needs in the modern feed mill.

Richardson

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Belt fed and with pneumatic gate assist minimizing beam movement, the FPA handles all non-dusty grains, crumbles, pellets, range cubes (to 2½") and similar materials. Its simple construction assures complete dependability.

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BASIC MATERIAL MANUFACTURERS and HEADQUARTERS FOR TECHNICAL INFORMATION

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BAGS

BURLAP, COTTON and PAPER

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Trade Agents Twines

INDIANAPOLIS, IND.

Millfeed Production Gains Moderately

Production of millfeed in tons for week ending March 2, and prior two weeks, together with season total of (1) principal mills in Nebraska, Kansas and Oklahoma and the cities of Kansas City and St. Joseph; (2) principal mills of Minnesota, Iowa, North and South Dakota and Montana, including Minneapolis, St. Paul and Duluth-Superior; (3) mills of Buffalo, N.Y. Production computed on the basis of 72% flour extraction.

	Southwest*		Northwest*		Buffalo†		Combined**	
	Weekly production	Crop year to date	Weekly production	Crop year to date	Weekly production	Crop year to date	Weekly production	Crop yr. to date
Feb. 27-Mar. 2	28,461	897,393	13,785	478,654	9,462	320,675	48,708	1,696,722
Prev. week	‡24,604		‡13,336		10,607		‡48,547	
Two wks. ago	25,518		13,214		9,445		48,180	
1955	24,732	883,201	13,359	574,396	10,701	375,620	48,792	1,833,217
1954	23,819	846,089	13,836	507,578	9,760	359,889	47,405	1,713,556
1953	21,261	865,538	16,454	540,950	9,674	458,526	47,389	1,865,014
1952	24,863	905,524	13,569	412,169	9,889	351,557	48,320	1,669,250

*Principal mills. **74% of total capacity. †All mills. ‡Revised.

held for 24 hours with feed being removed at such intervals as to obtain the stated starvation period.

The starvation lengths were 24 hours, 12 hours, six hours, three hours and zero hours. Eviscerated yield was calculated as a per cent of live weight.

Eviscerated yields of males (1st) and females (2nd) for the different starvation periods were as follows:

24 hour.....66.6 and 66.5%
12 hour.....68.5 and 70.1%
6 hour.....70.9 and 71.0%
3 hour.....70.6 and 71.6%
0 hour.....69.7 and 71.7%

The results indicated that birds can be starved 6-12 hours without affecting their eviscerated yield, that a 24-hour starvation definitely lowered yields, and that there was no real difference between sexes.

The article does not mention New York dressed weight of the birds, but, Massachusetts specialists point out, one might assume that the weight of discard viscera might be heavier with birds starved zero and three hours compared with six and 12 hours.

U.S. Farm Exports Up During 7-Month Period

WASHINGTON—U.S. agricultural exports for the first seven months (July through January) of 1955-56 are estimated by the U.S. Department of Agriculture at $1,945,000,000, in value, or 5% above the $1,856,000,000 valuation for the corresponding months a year earlier.

The July-January export value for grains and feeds, estimated at $620,000,000, was 30% above the $476,000,000 a year earlier. Wheat exports are at a high level when compared with the traditional U.S. position, according to the USDA.

Cotton exports, valued at $170,000,000 in July-January, were 59% less than the total of $413,000,000 for the same months of 1954-55. The total of all other farm exports showed a 23% rise, however. The drop in cotton exports is attributed largely to the fact that foreign cotton and synthetic fibers are underselling the U.S. in foreign markets.

Agricultural exports in January, 1956, are estimated at $310,000,000, about the same as in December and 13% more than in January, 1955, when the valuation was $274,000,000. Notable differences between exports in January, 1956, and 1955 were the 50% smaller cotton shipments, which more than offset increases in grains, tobacco, vegetable oils and oilseeds, fruit and vegetables, and livestock products.

Foreign demand for livestock products is increasing as living standards overseas improve. The July-January export estimate is $310,000,000, 17% more than the $263,000,000 for the corresponding months of 1954-55. Dairy products, animal fats, eggs, and hides and skins were up.

Tobacco exports for the 7-month period totaled over $280,000,000, one-fourth more than the $226,000,000 for the same period of 1954-55.

July-January exports of vegetable oils and oilseeds totaled $233,000,000 as compared with $207,000,000 a year earlier, a gain of 13%.

Recent gains in agricultural exports can be credited to: (1) rising prosperity around the world with resulting increases in effective demand, and (2) U.S. government export programs, such as sales for foreign currency, barter, loans, donations, and Commodity Credit Corp. sales for export. The current improvement has occurred despite an all-time high in foreign free world production; frequent underselling of U.S. products in world markets; foreign restrictions on imports of U.S. products; and bilateral agreements between foreign exporters and importers, the USDA announcement stated.

Mill Shuts Down

GALVESTON, TEXAS — The flour milling plant of the Texas Star Flour Mills, Galveston, has ceased operations.

Company officials, announcing the closure of the mill, stated that customers will be supplied from other units of the parent company, Burrus Mills, Inc. Capacity of the Texas Star mill is approximately 6,900 cwt. a day. The mill was reopened last summer after a six-year shutdown.

RETIRED GRAIN OFFICIAL DIES

GLYNDON, MINN.—Mons E. Jerdee, 80, chief of the Minnesota grain inspection department five years before retiring in 1941, died recently. He was a resident of Glyndon, Minn.

Donald L. Johnson

APPOINTED — Donald L. Johnson has been appointed assistant sales manager for Victor Chemical Works, announces Morris R. Stanley, vice president and director of sales. Mr. Johnson, a native of Chicago, joined Victor in 1938 and shortly thereafter was appointed sales representative in the company's New England territory. He has been a member of the firm's New York sales staff since 1942. Mr. Johnson will move to the company's headquarters in Chicago. Before joining Victor, he spent four years in the chemical laboratories of E. I. du Pont de Nemours & Co. and Libby, McNeill and Libby. He is a graduate of Knox College, Galesburg, Ill.

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Eugene L. SELDERS CO.
"The Polka Dot Folks"
BOARD OF TRADE
KANSAS CITY 5, MO.
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"Snow-Flake"
OYSTER SHELL
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SEE OUR AD ON PAGE 33

WORLDWIDE RESOURCES
FEED INGREDIENTS
JUST A PHONE'S THROW AWAY
ESTABLISHED 1873
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Baler and Binder Twine
Average 231 Feet • 325 lbs. Strength
HIGH GRADE EAST AFRICAN SISAL
Top Profits Immediately for You!
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• Buy for CASH or Dating Program at lowest prices on the market.
SALES DIVISION
EMILE REGNIERS CO. (U.S.A.), INC.
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Distributors and Sales Agents—Inquiries Invited

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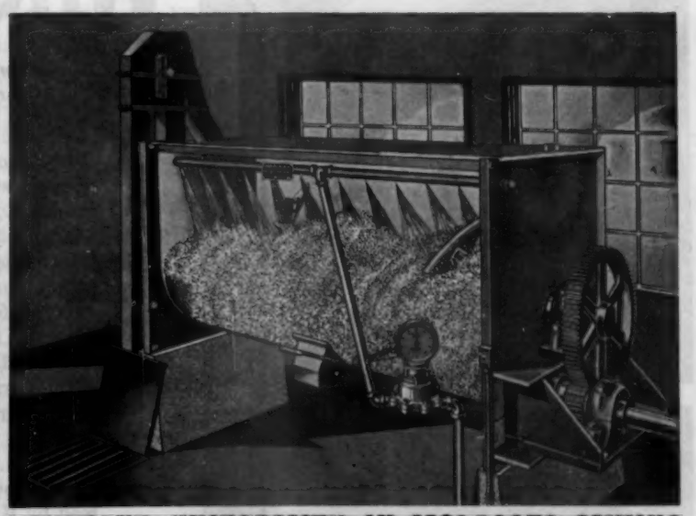
CONSTANT UNIFORMITY IN MOLASSES MIXING
World's most TROUBLE-FREE Molasses Mixer. Materials are mixed, blended and cross-blended constantly — away from the ends, toward the center for the most uniform mix possible. Handles toughest mixes.
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Please send me complete descriptive catalog
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Over Half of Lamb And Mutton Output in '54 Went to 3 States

WASHINGTON—Over half of the lamb and mutton produced in 1954 went to New York, California and Massachusetts, according to a report issued recently by the U.S. Department of Agriculture.

New York and California each received more than twice as much as any other state, their proportions being about 24 and 21%, respectively, of the total available supply. Massachusetts was third with 8%. Data for this study were obtained from a survey of meat packers in cooperation with the American Meat Institute, the National Independent Meat Packers Assn., and the Western States Meat Packers Assn., Inc.

Other states of some importance in the quantity of lamb and mutton distributed to them as a proportion of the U.S. total in 1954 were: Pennsylvania 6.2%, Illinois 6.2%, New Jersey 5.9% and Michigan 4.3%. These four states plus New York, California and Massachusetts took 76% of the U.S. supplies of lamb and mutton available for consumption.

By contrast, less than 1% of the U.S. total was distributed to 10 states —Vermont, North Dakota, South Dakota, West Virginia, South Carolina, Alabama, Mississippi, Arkansas, Oklahoma and Wyoming.

On a per capita basis, lamb and mutton available for consumption in 1954 was by far the highest in Massachusetts and California with 12.4 and 12.3 lb., respectively. Other states relatively high in per capita consumption were New York, Utah, New Jersey, Rhode Island and Connecticut. In addition to these states, only Nevada, New Mexico, Illinois and the District of Columbia had indicated per capita consumption higher than the U.S. average of 4.5 lb.

A copy of this report, "Distribution of Lamb and Mutton for Consumption in the U.S.," AMS-93, may be obtained from the Marketing Information Division, Agricultural Marketing Service, U.S. Department of Agriculture, Washington 25, D.C.

Call

Van Dusen Harrington Co.

for Barley, Oats, Corn

BUSINESS FOUNDED 1852

MINNEAPOLIS DULUTH

Article Relates to Feed Mill Cost Study

WASHINGTON—A recent issue of Agricultural Economics Research, published by the Agricultural Marketing Service of the U.S. Department of Agriculture, includes an article relating to USDA's study and report on "Costs of Operating Selected Feed Mills."

The article, entitled "Empirical Estimates of Cost Functions for Mixed Feed Mills in the Midwest," was written by Prof. Richard Phillips of Iowa State College. Iowa State was one of the institutions cooperating in the USDA study, which was directed by Dr. V. John Brensike, USDA agricultural economist.

The article is a theoretical discussion of the methodology of determining cost functions using the feed mill cost studies as illustrative material, and it is written primarily for economists. However, feed men, particularly those interested in economic and market research, may be interested in the article.

A reprint of the article will soon be available, and limited requests will be filled by the author, Iowa State College, Ames, Iowa.

For fast, economical weight gains, feeds should have whey...

KRACO FRESH-DRIED WHOLE WHEY

(Guaranteed at least 65% lactose —runs are usually 70-72%)

Whey is *one* of the main ingredients in poultry, swine and calf feeds that help produce optimum growth. It supplies whey factor—a most important nutritional element. In fact, whey is so important in animal feeds, many farmers insist on feeds with whey, and KRACO is Fresh-Dried *Whole* Whey.

KRACO *is freshest!* As soon as the whey is drained from the sanitary cheese vats in Kraft's modern cheese factories, it's dried. KRACO can't get stale or high-acid. Kraco is the world's most famous low-acid whey. Quality guaranteed by Kraft.

KRACO *is pure whey!* Nothing is removed, nothing is added. KRACO contains all the whey nutrients: lactose (minimum 65%), milk protein (12%, mostly lactalbumen), milk minerals and vitamins plus unidentified growth factors.

A Kraft Product

KRAFT FOODS COMPANY

500 Peshtigo Ct.
Chicago 90, Illinois

Virginia Group to Push Commercial Egg Total

RICHMOND, VA.—C. G. Lindsey, Jr., Lindsey-Robinson & Co., Roanoke, has been named a committee chairman in the new Virginia Egg Council, which was organized here recently to push egg production in Virginia.

Poultrymen and state agencies aim to increase commercial egg operations in the state so that the state will produce more of its own eggs.

Mr. Lindsey is chairman of the financing committee, with R. J. Krueger of Virginia Polytechnic Institute as committee advisor.

Other committees cover marketing, housing and production practices and information.

DRINKING WATER

Research at the Iowa Experiment Station indicated that cows watered automatically drink 18% more water and give 3.5% more milk than animals watered twice a day.

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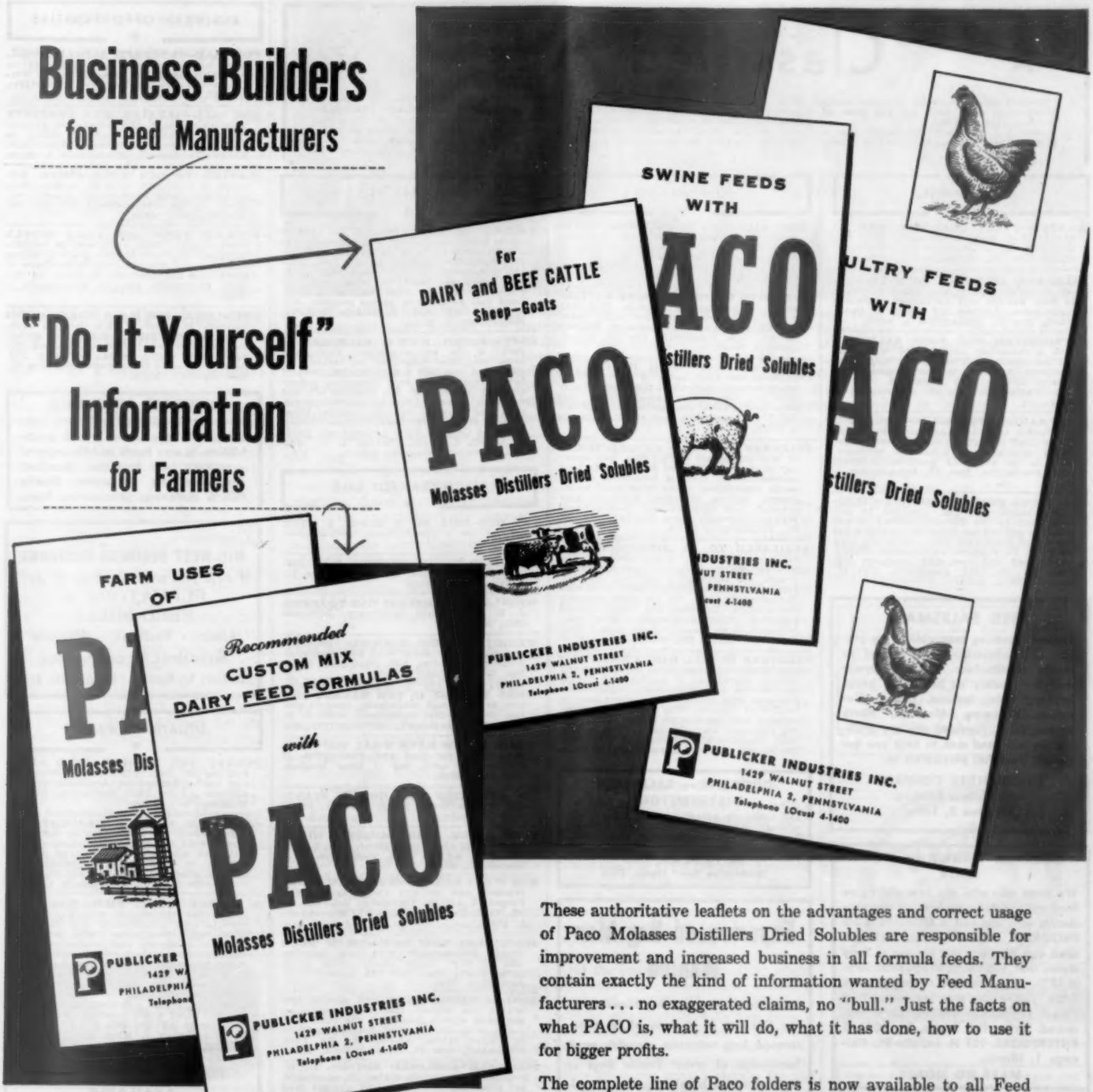
for Farmers



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Here is the ideal, fast-selling package for direct sales to farmers and cattlemen.

These authoritative leaflets on the advantages and correct usage of Paco Molasses Distillers Dried Solubles are responsible for improvement and increased business in all formula feeds. They contain exactly the kind of information wanted by Feed Manufacturers . . . no exaggerated claims, no "bull." Just the facts on what PACO is, what it will do, what it has done, how to use it for bigger profits.

The complete line of Paco folders is now available to all Feed Manufacturers and Dealers, for their own information, along with other literature to distribute to their customers. If you are not acquainted with PACO and its many advantages as a fortifier and "freshener" for all types of feeds, we will be pleased to send by return mail the data you check on coupon below.

PACO MOLASSES DISTILLERS DRIED SOLUBLES

A PRODUCT OF
PUBLICKER INDUSTRIES INC.
ANIMAL FEED SALES DEPARTMENT
1429 WALNUT STREET, PHILADELPHIA 2, PA.
PHONE: LOCUST 4-1400

PUBLICKER INDUSTRIES INC.
Animal Feed Sales Department, 1429 Walnut St., Philadelphia 2, Pa.

Without obligation send the following:

Check Here
- ☐ POULTRY FEEDS with PACO
- ☐ SWINE FEEDS with PACO
- ☐ DAIRY and BEEF CATTLE FEEDS with PACO

Folders to distribute to our customers:

Indicate no. desired
- CUSTOM MIX DAIRY FEEDS with PACO
- FARM USES of PACO

CLIP THIS COUPON TO YOUR LETTERHEAD

☆ Classified Ads ☆

Classified advertisements accepted until Wednesday each week for the issue of the following Saturday.
Rates: 15¢ per word; minimum charge $2.25. Situations wanted, 10¢ a word; $1.50 minimum. Count six words of signature, whether for direct reply or keyed care this office. If advertisement is keyed, care of this office, 20¢ per insertion additional charged for forwarding replies.

Classified advertising rate not available for commercial advertising. Advertisements of new machinery, products and services accepted for insertion at minimum rate of $9 per column inch.
All Want Ads cash with order.

HELP WANTED

WANTED—FULLY QUALIFIED MAN TO handle dog food department. Give full qualifications. Address Ad No. 1537, Feedstuffs, Box 67, Minneapolis 1, Minn.

SALESMAN, INCREASE YOUR INCOME, sell complete line of veterinary products, to feed dealers and hatcheries, excellent commission. Address Ad No. 1472, Feedstuffs, Box 67, Minneapolis 1, Minn.

EXPERIENCED DOG FOOD SALESMAN with a following among feed stores, to sell nationally distributed dry dog food. Complete line. Many territories open. Commission and expense allowance. Ad No. 1349, Feedstuffs, Box 67, Minneapolis 1, Minn.

SALESMAN (2)—PREFER MAN TRAINED by Purina or other aggressive merchandising feed manufacturer to cover established Michigan or Wisconsin territory. This is an excellent position. Address 1490, Feedstuffs, Box 67, Minneapolis 1, Minn.

GRAIN AND FEED MACHINERY SALESman wanted—Are you qualified to sell machinery to the elevator trade? If you are now calling on firms in northern Indiana and northwest Ohio you're the man we want. Very liberal commission offered. Established and protected territory. Address Ad No. 1538, Feedstuffs, Box 67, Minneapolis 1, Minn.

FEED SALESMAN

Needed traveling man calling on jobbers and wholesale feed dealers to handle Shellbuilder Crushed Oyster Shell for poultry on brokerage basis. Territory Ohio, Indiana, Illinois, Nebraska, Wyoming, Montana, North Dakota, Iowa. Provided you are qualified we will send man to help you get started. Send full particulars to:

SHELLBUILDER COMPANY
620 Melrose Building
Houston 2, Texas

SALESMEN WANTED IN EVERY STATE

We want men who are now calling on feed mills, hatcheries & large egg producers who can sell a QUALITY EGG PROGRAM. We are leasing a refrigerated egg display case for use in food stores that will increase egg sales 30% to 60%. If you are now calling on these firms, you're the man we want. Very liberal commission offered. Leads furnished. Write: Phil Tobias, Sr., TOBIAS ENTERPRISES, 187 N. LaSalle St., Chicago 1, Illinois.
MAKE BIG MONEY

MANAGER, FARM SALES DIVISION

Southern California mill, with a quality feed and a good reputation for over 25 years, needs man with poultry and animal nutrition, and successful sales management background to supervise 12 to 14 men calling on commercial poultrymen and stockmen within a 200 mile radius of Los Angeles. Your communication can be in confidence. Address Ad No. 1545, Feedstuffs, 612 Board of Trade, Kansas City 5, Mo.

SALES MANAGER

Medium sized AAA 1 midwest feed manufacturer wants aggressive man to direct and manage sales force selling a complete dealer franchise built around top quality feeds. You are probably now employed supervising salesmen in some capacity, you have hired and trained salesmen, you have a successful tonnage building record. Age 30-45. If qualified, send full particulars and recent photo to Ad No. 1444, Feedstuffs, Box 67, Minneapolis 1, Minn. All replies treated strictly confidential.

HELP WANTED

FEED SALESMAN DESIRED FOR SOUTHwestern Illinois territory of expanding feed manufacturing concern. Experience required. Good starting salary. Address Ad No. 1542, Feedstuffs, 141 W. Jackson, Chicago 4, Ill.

QUALIFIED CREDIT MANAGER EXPERIenced in feed milling business. This may prove real opportunity for right man. Immediate application necessary. Address Ad No. 1555, Feedstuffs, Box 67, Minneapolis 1, Minn.

SALES MANAGER WITH DEGREE IN nutrition to head sales of eastern feed manufacturer. Individual must be top caliber for comparable remuneration. Replies in strictest confidence. Address Ad No. 1543, Feedstuffs, Box 67, Minneapolis 1, Minn.

SALESMAN WANTED — MANUFACTURER of well-advertised rodenticide has opening in choice territories for direct factory representation. Item is best-seller in already established areas. Give brief background outline including territory now covered, how long, current lines carried. Write P. Kremer, Murd Co., 122 Cuthbert St., Philadelphia 6, Pa.

AVAILABLE TO AN AGGRESSIVE, INtelligent individual experienced in the sale of poultry equipment and veterinary drugs. An established territory in New Jersey and adjacent New York State and Pennsylvania will be assigned through consultation. Expenses and transportation provided. Guaranteed salary with commissions. State qualifications. Apply Garden State Supply Co., Belvidere, N. J.

SALESMAN TO SELL BABY CHICKS AND specialize in broiler chick sales. Opening July 1. Knowledge of poultry and hatchery service work necessary. Organization has over half million state where man is needed at present. Will work on drawing account and commission basis. Write giving reference and details. Replies will be kept confidential. Address Ad No. 1556, Feedstuffs, Box 67, Minneapolis 1, Minn.

BROKERS — SALESMEN DISTRIBUTORS

Sell nationally advertised PHENOSALT, the original Sheep and Cattle salt wormer. Fast seller, sure fire repeater, liberal commissions. Write:
DR. HEINZ CO., INC.
Washington Court House, Ohio

Experienced Bag Man Wanted

A reputable National Bag Manufacturing Concern is in need of an experienced bag salesman — with good knowledge of either Textile Bags or Multiwalls (or both) required. Traveling job is open—good pay—good territory—must have own car. If interested give details as to background, experience, age, family status — all held in strictest confidence. Address your reply to Ad No. 1560, Feedstuffs, Box 67, Minneapolis 1, Minn.

FUMIGATION MEN WANTED

Rapidly expanding Fumigation Division needs men experienced in actual fumigation work. Parent company long a leader in grain storage operations. Because of successful techniques and results in own storage facilities, company has been named distributor for Liquid Cyanogas (H. C. N.) for large mid-western area. New division offers ambitious men with fumigation experience opportunity to grow with it. Men must be cooperative, have initiative, be hard workers and willing to travel. Please give full qualifications in first letter. State salary desired. All replies confidential.

Dannen Fumigation Division
DANNEN MILLS, INC.
Box 429 St. Joseph, Mo.
Distributors of Liquid Cyanogas (H.C.N.)

HELP WANTED

SALES REPRESENTATIVE — YOUNG man with proved sales background to cover northern Virginia for largest organization of its kind selling feed milling equipment. Territory has high earning potential. Interview with company executive in your area within 10 days. Send full particulars, phone number. Address Ad No. 1532, Feedstuffs, Box 67, Minneapolis 1, Minn.

EXPERIENCED FEED SALESMEN — Swift & Co. are expanding their feed sales and are interested in talking to men who can sell a high quality line of feed, concentrates, base formulas, minerals and specialties. We furnish car, all expenses, good salary and commission plan and splendid opportunities for those looking for a permanent business career. Write to General Feed Department, Swift & Co., U. S. Yards, Chicago 9, Ill., and please furnish complete details.

MACHINERY FOR SALE

JAY BEE MILL NO. 3 MODEL S WITH screens, extra good. Cheap. Earl Schroeder, Knoxville, Iowa.

ST. REGIS VALVE BAGGER, $800. Address Ad No. 1550, Feedstuffs, Box 67, Minneapolis 1, Minn.

WHIRLAWAY AIRBLAST CAR LOADERS. J. E. Hagan Mill Machinery, Jefferson City, Mo.

WEIGH BUGGIES, MOLASSES BLENDers, Portable Turret Screw Conveyor. Write for bulletins. Mill Equipment Sales, Box 222, Hillsdale, Mich.

WHEN YOU ARE IN THE MARKET FOR new or used mill machinery, electric motors or any other equipment, write J. E. Hagan Mill Machinery, Jefferson City, Mo.

WRITE US, WE HAVE WHAT YOU NEED in supplies for feed and flour mills. If it's new or used, buy it from Hughes, Wayland, Mich.

"20" ATTRITION MILL, MOTORS, STARTers. Terms. Write E. K. Tanner, Little Falls, Minn.

FEED MIXER, 1-TON CAPACITY, GUARanteed first-class throughout, 5 H.P. motor drive. Ad No. 8774, Feedstuffs, Minneapolis 1, Minn.

ONE 7' CUT FOX CHOPPER WITH JONES Header; one 10' Cut Oak Harbor Self-Propelled Alfalfa Harvester. Address Ad No. 1473, Feedstuffs, Box 67, Minneapolis 1, Minn.

MACHINERY FOR SALE—NO. 30 BLUE Streak Hammermill with dust collector and 40 H.P. motor direct drive. Price $495. Ideal Feed Co., 507 Laurel Ave., Janesville, Wis.

HEIL DEHYDRATOR MODEL 8DS24, OPerated one season. Heil 24x24 Hammermill with direct connected 125 H.P. G.E. motor with starter. Will deliver anywhere in United States. Address Ad No. 1549, Feedstuffs, Box 67, Minneapolis 1, Minn.

FOR SALE—ENCLOSED MOTORS, RICHardson Scales, truck scales, hammermills, oat crimpers, horizontal and upright feed mixers, sewing machines, elevator legs, screw conveyors, molasses mixers and pellet mills. J. E. Hagan Mill Machinery, Box 574, Jefferson City, Mo.

FOR SALE — FOUR SPROUT-WALDRON Ribbon Mixers, 256 cu. ft. (12,000 lb.) working capacity. Rotary Dryers, 3'x25'; 4'x30'; 4' 6"x40'; 5'x30'; 5' 6"x50'; 6'x40'. Also Hammermills, Pulverizers, Bucket Elevators, Screw Conveyors, Bulk-Flo Drag Conveyors, etc. Perry Equipment Corp., 1403 N. 6th St., Philadelphia 22, Pa.

CLOSING OUT LOCAL FEED MILL — Master Model California Pellet Mill with starters, cooler, crumble roll and grader, all with motors; Union Special Bag Closers; Vi Brox Bag Packer; Model H Jay Bee Hammer Mill with motor and drive; new No. 40 Webster Single Power Shovel; 9x18 and 9x24 Two-Pair High Roller Mills; S. Howes Corn Cutter with 10 H.P. motor; No. 4 S. Howes Standardized Receiving Separator, with motor and drive; 18" Beall Aspirator with fan; Vertical and Horizontal 1-ton Mixers; Wood and Metal Elevators, Hoppers, spouting, conveyors, motors, reducers, feeders, bag trucks, etc. General Mill Equipment Co., 2021 Pennsylvania, Kansas City, Mo.

BUSINESS OPPORTUNITIES

FOR SALE—SUNCURED ALFALFA MILL, large buildings, land and equipment on two railroads. $5,000. Balance terms. Wisconsin. Address Ad No. 1548, Feedstuffs, Box 67, Minneapolis 1, Minn.

FOR SALE—ALFALFA MILL COMPLETE with dehydrator and plenty of storage facilities located on railroad siding in Ohio-Michigan area. Address Ad No. 1558, Feedstuffs, Box 67, Minneapolis 1, Minn.

WANTED TO BUY FEED STORE, located in Southeast, with 80 or more tons of formula feed business per month. Address Ad No. 1547, Feedstuffs, Box 67, Minneapolis 1, Minn.

LARGE FEED AND FARM SUPPLY store, central Ohio, will sell to reliable company who will finance grain handling and grain equipment—will take share of stock and management. Address Ad No. 1546, Feedstuffs, Box 67, Minneapolis 1, Minn.

FEED MILL FOR SALE—GOOD GOING business in heart of rich farming area. Good building, fully equipped for grinding and mixing. Trackage. Priced for quick sale. Olivia, Minn., on Hwy. 212. Address Ad No. 1535, Feedstuffs, Box 67, Minneapolis 1, Minn.

INTEREST AVAILABLE

In modern retail feed mill store. Substantial volume, good growth possibilities, in own feeds and Honeggers' —nation's best franchise. Excellent machinery and employees. Martin Mill & Hatchery, Maquoketa, Iowa.

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When you want to Buy or Sell
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CRETE SALES SESSION—Crete (Neb.) Mills recently held regional sales schools for district and territorial representatives of the company in Lincoln and Scottsbluff, Neb. Sales personnel from Iowa and eastern Nebraska attended the meeting which was held in Lincoln. Participating, as shown above, were, first row left to right, Price May, Lincoln; R. L. Deeringer, Marysville, Kansas; Robert Cummings, Des Moines; M. L. Richard, Mt. Pleasant, Iowa; John Scofield, Lincoln; E. Paust, Omaha; William Schoenherr, Danville, Ill.; John Burrell, general manager of the company, Crete. Second row, left to right, Wallace Leavitt, Crete; Gene Anderson, Lincoln; Art Manuel, Eagle Grove, Iowa; Charles Hoppe, Crete; George Sisson, Harlan, Iowa; Bryan Webber, Arthur, Iowa; Ray Elgenberg, Crete; H. Mooberry, Crete; H. Brinkopf, Lincoln; J. C. Phillips, Norfolk, Neb.

PENB Readies Finance Kit for Use of States In May Fund Campaign

CHICAGO—In preparation for the first big date on the Poultry and Egg National Board's 1956 finance-campaign calendar—the egg check-off of 10¢ per case of eggs handled during the month of May—a PENB state committee finance kit for 1956 is being sent to PENB state committees throughout the nation.

According to Dr. James M. Gwin, PENB general manager, the finance kit is made up of:

1. The campaign booklet, "One Dozen Facts That Influence the Future of Your Business."

2. The 1956 PENB finance action plans, which include the total state quotas, the state commodity quotas for eggs, farm chickens, broilers, turkeys and "other poultry," together with the working arrangements with the National Turkey Federation and the National Broiler Council for the collection of turkey and broiler promotion funds.

3. Lists of 1955 investors—hatcherymen and producers, state processors, state feed men, broiler men, cooperatives and the equipment group (including pharmaceutical firms, publications, etc., in so far as they are state concerns).

4. A 1956 revised state PENB committee organization plan.

A feather fund plan folder will be sent as soon as published. The feather fund has been set up by the Poultry and Egg National Board, the National Turkey Federation and the National Broiler Council, so that allied industries doing a national business may make one investment annually for poultry promotion work and designate for what segment of the industry their investment should be allocated or how it should be divided among the three cooperating organizations.

Richardson Scale Expands Facilities

CLIFTON, N.J. — Construction of new administrative and production buildings at Richardson Scale Co. here included an interesting example of time-saving, when a new building was erected around the one it was replacing. The result was no loss of production time in the company's manufacturing program.

This project was a part of the scale company's recently completed program for expanding and modernizing its main plant.

The new building was started over one which housed the company's machine shop. During the course of construction the old building served as scaffolding for work on the new one. When the new building was completed, the old building was torn out from under it.

The new building gives the company 10,800 sq. ft. of additional floor space. In addition to housing the machine shop, it will also contain the tool room and sub-assembly departments as well as locker rooms and first aid.

Richardson's new executive and sales administrative offices are of modern design, constructed of red face brick and stone. The building covers an area of approximately 5,000 sq. ft. It is completely sound-conditioned and equipped with all-weather air conditioning. The interior is finished in mahogany paneling.

This building houses offices for Richardson's management administration, export division, accounting, traffic, purchasing and reception personnel. It has an area of 5,000 sq. ft.

STORAGE

(Continued from page 11)

loss in market value due to deterioration in quality amounted to $1.39 per bushel when stored in country elevators whereas in federal bin sites the annual average costs for those causes amounted to $1.98 per bushel, according to Mr. Hendrickson. The federal bin site storage loss is totally for the account of the government whereas in private facilities the warehouseman bears the cost of shrink and quality. In fact, Mr. Hendrickson asserted, "There is no means whereby any accurate estimate can be made of the actual loss cost to the government."

Objections to 3-Year Plan

Government proposals to continue the grain storage agreement on a three-year open account basis allow little time to average fluctuations in the quality of grain receipts, Mr. Hendrickson told the committee. The committee investigators' recommendation objecting to the anniversary service charge assumes a high volume of commercial operations, he said. That is an inaccurate determination, he told the committee, since CCC stocks dominate the warehouse industry. Risks of storing old crop grains increase substantially with age. Now it is found that CCC plans to drop this service charge merely because of the unfavorable committee report and before there has been a chance for the committee to evaluate the report itself, he said. It was also brought out at Mr. Hendrickson's appearance that the full sub-committee had never seen the first volume of the report before it was issued and several members of the committee expressed satisfaction with the Hendrickson disclosures.

Mr. Hendrickson closed his testimony by quoting from the subcommittee's report the statement that "substantial savings could be realized if commodity offices merchandised their own grain." "The statement must be challenged because it is in direct conflict with the CCC charter." He concluded by saying, "If costs of government merchandising operations, costs of personnel, rent of offices, telephone and clerical services are honestly figured, it is not reasonable to suppose that the costs will be less than if the same functions are performed, consistent with the charter, by cooperatives and others equipped to perform these functions."

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Route Selling

Recipe for Success

By Al. P. Nelson

There is an old saying that if a salesman will make five calls per day five days per week and keep up week after week, he has the recipe for success in selling.

While this saying is well known, no one has ever said how often a salesman must call on a farmer to get his feed, fertilizer and related farm goods business.

However, Wilbur and Glenn Porter, brothers, who own Porter's Feed Store, think they have the answer. And the answer is: "Call on him often enough to get his business."

In the case of the Porters, they knew they would have to visit farmers personally if they hoped to get a volume feed business, and so both of the brothers took an hour here and there to call on farmers in the trade area.

"It was surprising how many orders we picked up," says Wilbur Porter. "Farmers seemed to like the idea of having a feed man come to visit them and talk with them. We pounded on many, many doors the first year, but it paid off. In a lot of cases we got turndowns, but that didn't deter us. We called back on those who refused us when we figured we had something special we could offer them."

Mr. Porter says that in the case of a big hog raiser he called on him over 10 times during a period of six months, and then gave up. A week after his last call, the hog farmer walked into the feed store and placed a big order for hog feed. He had finally succumbed to the cumulative hog feed sales presentation given him during those 10 calls.

"That certainly surprised me and was a lesson I will never forget," reports Mr. Porter. "That man is one of our largest volume feed customers today. Because of the experience we had in his case, we are now calling again on those prospects, who turned us down once or twice before. I'll bet we'll land a few of them, too."

It is the contention of both of the Porters that a new feed store or management needs to be more aggressive in the beginning in order to win enough customers to stay in business and grow. With that in mind, they worked overtime giving service to customers, making deliveries late at night if needed and going out of their way to accommodate customers. And patrons have really appreciated this service.

"We knew, too, that when we did get customers in the store we would have to have good displays to make related sales," says Mr. Porter, "and so we rigged up some good shelf displays of related feed items and equipment and also piled sacks of feed in displays at the center of the floor. This may make our feed salesroom a little crowded, but when customers walk in they can see we aim to show them what we have for sale."

The next step after the "pounding the doors" campaign was over, was to establish a route system of selling. The Porters started with one route, got it operating well, and then established others. At the present time they have four routes operating, and they get quite a bit of extra volume through them compared with the store type of operation.

"Our walk-in farm business is good, too," reports Mr. Porter "because a municipal parking lot is right close by and many farmers use it. They can't help spotting our exterior store sign as they park their cars. We usually try to have some attractive window displays, too, to help increase traffic."

The Porters also sell baby chicks, poultry and hog equipment, sanitation supplies, insecticides and some fertilizer. And they say they are going to keep right on calling on prospects in the immediate trade area as a way of increasing their annual sales volume.

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N. W. Feed Association Signs New Members

MINNEAPOLIS — The following firms recently have joined the Northwest Feed Manufacturers Assn.: Clinton Foods, Inc., Distillation Products Industries, the Ray Ewing Co., Flavor Corporation of America, H. E. Hardy & Co., the Heger Products Co., Hoffman-Taff, Inc., International Minerals & Chemical Corp., Kraft Foods Co., C. W. Meyer Co., Minnesota Scale Manufacturing Co., National Alfalfa Dehydrating & Milling Co., United Mineral Products Co. and VyLactos Laboratories, Inc.

New Mill Planned

MOUNTAIN VIEW, OKLA.—The Farmers Cooperative Assn. at Mountain View has announced plans for construction of a new custom feed plant. Ross Machine & Mill Supply, Inc., Oklahoma City, will design the layout and furnish the equipment. The mill will be equipped with a hammer mill, Ross Rollerator, twin-1-ton horizontal mixers, S. Howes molasses mixer. Bulk loading or sacking off from all equipment is provided. Ingredients will be stored in overhead bins.

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DISTILLERS FEED CONFERENCE

(Continued from page 6)

meal and dried cheese whey as another variable. These two sources of unidentified growth factors were used in diets with added animal fat to produce a third variable which consisted of productive energy levels of 950 and 1,100 calories per pound of diet.

Prof. Runnels said an analysis of the data indicates that the groups receiving distillers dried solubles were slightly and consistently heavier with a slight improvement in feed efficiency over the negative controls. He said these differences were not statistically significant at probabilities as great as 20 to 1. Neither were the differences attributable to the level of distillers dried solubles significant, indicating that any of the levels tested would be satisfactory in practical broiler diets depending upon the economic comparisons with other ingredients.

"The menhaden fish meal-dried whey variable produced an improvement in both growth and feed efficiency," Prof. Runnels continued. "The improvement in growth was highly significant at a probability greater than 99 to 1."

Energy Level

Of the three variables tested, increasing the energy level of the diet with animal fat produced the greatest effect on both body weight and feed efficiency.

Prof. Runnels said that both the distillers dried solubles and the menhaden fish meal-dried cheese whey variables, while differing from each other, produced almost identical effects in gain and feed efficiency when tested in the 950 and 1,100-calorie diets.

Both pigmentation and feathering were slightly inferior in the broilers fed the 1,100-calorie diet. Prof. Runnels recommended that feed manufacturers "proceed with extreme caution in producing the promising extremely high energy diets."

RUMINANT NUTRITION—Dr. O. G. Bentley of the Ohio Agricultural Experiment Station pointed out that some progress on the identification of growth factors for rumen microorganisms in vitro appears to have been made, although much remains to be done. He reviewed some studies in this field, first noting artificial rumen study results indicating the presence of growth factors in various natural materials, including distillers products.

The next problem is to identify the compounds involved. One of the findings was that certain B-vitamins improved the rate of cellulose digestion in the artificial rumen. In the Ohio work, the next significant development was the observation that the volatile fatty acid fraction from rumen juice is active. Subsequently it was found that the 5 and 6 carbon volatile fatty acids were responsible for this activity. However, Dr. Bentley continued, before a response to valeric acid could be shown, biotin and para-aminobenzoic acid had to be added to the basal medium. Therefore, he said, the vitamin-fatty acid combination was necessary to obtain the activity shown by extracts of forages, distillers dried solubles, etc.

Further work showed activity of various materials was not due to their volatile 5 or 6 carbon acid-B-vitamin content but to another factor(s) which has not been identified as yet. Iowa work is in progress on an active substance that appears to be a peptide found in partial acid hydrolysates or protein concentrate feeds or in the more insoluble proteins from feather meal.

Also, Dr. Bentley said, certain amino acids have been found to have growth factor activity in the artificial rumen.

CATTLE AND CALVES—In trials at the Kentucky Agricultural Experiment Station it was found that corn distillers dried grains with solubles are a satisfactory protein supplement for wintering young beef cattle, either as a sole concentrate in the ration or as a replacement for soybean oil meal in Purdue Supplement A.

This was reported by Dr. F. H. Baker of the University of Kentucky. Forty-eight weanling Hereford steer calves were divided into four equal lots. All received mature timothy hay free choice and had free access to loose salt, ground limestone and steamed bone meal.

The lot fed a supplement of 2 lb. of corn distillers dried grain with solubles made an average daily gain of .9 lb. over the 116-day trial. The calves fed 2 lb. distillers feed and 3 lb. ground shelled corn made average daily gains of 1.2 lb. The lot fed 3.5 lb. of modified Purdue Supplement A, with distillers dried grains with solubles replacing soybean meal, showed average daily gains of .93 lb., and those fed 3.5 lb. of Supplement A recorded average gains of .94 lb. daily. Those fed the modified Supplement A required 3.8 lb. of feed and 14.7 lb. of hay per pound of gain, while those fed the standard Supplement A required 3.7 lb. of feed and 14.8 of hay.

Digestibility Studies

C. H. Noller, now with the dairy department of Purdue University, presented a paper by Michigan workers on the relationship between growth of young calves and the digestibility of nutrients in milk and vegetable milk replacers.

The purpose of the study was to measure the digestibility of whole milk, evaporated milk and vegetable milk replacers to relate these results to growth data obtained with similar rations. The digestion trials were conducted using male calves in 4 x 4 latin square design experiments.

Digestion studies showed that 12-day-old calves digested whole milk nearly as well as older calves. A slight depression in the apparent crude protein digestibility was noted in a 12-day-old calf. The high digestibility of whole milk is manifested by rapid and consistent weight gains by young calves.

Evaporated milk was less digestible by 11 and 12-day-old calves than by older calves.

The digestibility of milk replacers was low in 11 and 12-day-old calves but reached a maximum value when calves were 25 to 28 days of age. This coincides fairly closely with the end of the critical period as evidenced by the rapid increase in weight gains, Dr. Noller noted.

He said: "The data indicate that young calves cannot satisfactorily utilize vegetable milk replacers of the type used in this investigation until the calves are approximately 25 days of age. This is emphasized by the low apparent digestibility of vegetable proteins during the critical period—the first 25 days of age."

Iowa Calf Experiments

Dr. N. L. Jacobson of Iowa State College reported on observations on the use of distillers dried solubles in calf feeds. The data presented were recorded during a series of studies on various feeding systems for the young calf. In some instances, observations on the effect of distillers dried solubles were an integral part of the objectives; in others, the observations were incidental. The report covered two types of feeds, milk replacements and veal calf supplements.

In the discussion of whole milk replacements, he noted at the outset that the feasibility of use of distillers dried solubles in milk replacements has been demonstrated.

Three milk replacement formulas containing distillers dried solubles were evaluated. Two systems were employed for milk and milk replacement feeding. In one, the calves were fed a limited amount of whole milk for two weeks and then were gradually changed to milk replacement. In the second, calves were fed the replacement immediately upon removal from the dam, three days after birth. Calves in all groups were healthy and vigorous. Scouring, although less in certain groups, was low in all groups. The immediate change-over to milk replacement, although resulting in slightly more diarrhea, was acceptable, especially since it was less complex and costly than the gradual change-over, Dr. Jacobson said.

Dr. Jacobson noted a need for veal calf feeding programs less costly than whole milk, and he told of tests to evaluate certain veal calf rations. One of the observations was that the weight gain and carcass quality of calves fed one of the supplements, although not as good as for calves fed a liberal amount of whole milk, were satisfactory and the feed cost per pound of gain was less.

Another observation was that incidence of diarrhea was much higher and there was frequent bloating with one of the supplements. The only difference in the two supplements being compared was the omission of distillers dried solubles from the supplement with which digestive disturbances were noted.

Apparently, Dr. Jacobson also said, calves are unable to digest efficiently large amounts of the feeds of the nature used in certain supplements posterior to the rumino-reticular cavity.

Dairy Cows

Dr. J. K. Loosli, in a paper by Cornell University workers, reported on further studies on the value of distillers feeds for dairy cows. Previously reported research, he noted, has shown the usefulness of distillers feeds as a source of protein and energy for milk production.

A study was conducted to compare corn distillers dried grains, cocoanut oil meal and corn gluten feed as components of dairy concentrate mixtures. Dr. Loosli said cows fed corn distillers dried grains produced slightly more milk while the milk from cows receiving cocoanut oil meal had a higher percentage of fat than for the other feeds. Efficiency of feed use was essentially the same for all rations.

From another study, Dr. Loosli said, corn distillers dried grains, urea and brewers dried grains appear to be satisfactory sources of protein when added to a low protein concentrate for dairy cows. Periods as short as five weeks were adequate to detect the inadequacy of a low protein (less than 9%) ration for milk production.

Dr. Loosli noted that while adequate information is available to enable one to satisfactorily meet the nutritive requirements of dairy cows, the question of how much more or less grain could be fed with a resulting increase in efficiency is only partially answered. Sound scientific information on this point is lacking and urgently needed, he said.

He reported on Cornell digestion trials with lactating cows. Among other things, he pointed out that preliminary results suggest that the TDN values of hay and grain fed in widely different ratios are not necessarily additive. Further investigation is merited, he said.

AFMA BOARD ACTION

(Continued from page 1)

AFMA program to honor outstanding research workers in the fields of animal husbandry, dairy husbandry and poultry science, is an extension of the program which has been in operation since 1948, Mr. Diamond explained. Each year, three $1,000 awards are made to men selected by the American Society of Animal Production, the Poultry Science Assn., and the American Dairy Assn. Scientists to be given the honor are selected on the basis of original research work published during the preceding three years. To date, 25 college scientists have been accorded this recognition.

Fund Solicitation

Endorsing the United Feather Fund of the Poultry and Egg National Board, the National Turkey Federation and the National Broiler Council, the AFMA board voted to recommend to AFMA members that support be given to the campaign.

Mr. Diamond pointed out that if manufacturers followed the recommendation of the fund and donated 1¢ a ton on all poultry feed, a maximum of $200,000 could be realized. He said a bulletin detailing suggestions for manufacturers' participation would be sent to AFMA members shortly. Kick-off date for the Feather Fund drive is April 16. (See Feather Fund story on page 3.)

The Feather Fund program is part of a new plan for coordinating the publicity, advertising and public relations needs and methods of the poultry industry. The plan includes a provision for a joint annual solicitation of support from feed and other allied businesses, instead of the past method of multiple solicitation by the various poultry groups. (Feedstuffs, Feb. 25.)

On the railroads' freight rate increase, the association had announced earlier that it would not take an official position on the hike. However, after reviewing the railroads' proposal, the board went on record opposing the increase as it affects agricultural products, Mr. Diamond said.

The production of a second feed industry public relations motion picture was proposed to the AFMA board by the association's advisory committee to the Agricultural Service Division. The first film, "Growth of a Nation," was produced in 1950 at a cost of $61,000. During the intervening period, "Growth of a Nation" has been shown to more than 2 million persons in 31,000 meetings and to 26 million persons in 338 television broadcasts. The AFMA directors recommended a budget of $5,000 for preliminary work leading to production of the second film.

Pending final approval of the 1956-57 budget, Mr. Diamond expects that research and script writing of competitive film producers will be underway this summer.

Among other actions of the AFMA Board was approval of the following companies for membership in the association: Berlin (Md.) Milling Co.; Crown Cork & Seal Co., Chicago; Crittendon-Smith, Tampa, Fla.; and, Magnus, Mabee & Reynard, New York.

In addition, the following companies had been previously approved for AFMA membership: Buckeye Feed Mills, Inc., Dalton, Ohio; Farmers Elevators, Inc., Owensboro, Ky.; Atlanta Trading Corp., New York; Association of Eastern Petfood Canners, Stamford, Conn.; Best Feeds & Farm Supplies, Inc., Washington, Pa.; Bush Brothers & Co., Clinton, Tenn.; Calo Dog Food Co., Inc., Oakland, Cal.; Chemlek Laboratories, Inc., Worth, Ill.; Columbus (Miss.) Canning Co.; Continental Can Co., Inc., New York; Mel De Munn & Associates, Chicago; Desendorf, Inc., Kansas City; Evans Industries, Inc., Marion, Ind.; Feed Associates, Inc., Marysville, Ohio; Gilbert Jackson Co., Inc., Kansas City; E. G. James Co., Chicago; Morgan Brothers Bag Co., Inc., Richmond, Va.; New Yorker Cheese Co., Philadelphia; Nutrition Associates, Orchard Park, N.Y.; Patent Cereals Co., Geneva, N.Y.; and Union Sales Corp., Columbus, Ind.

THE FEED MARKETS

★ ★ ★ ★

Demand — Supply — Trends — Prices

Quotations on feed ingredients shown in these and adjoining columns are wholesale prices, per ton, bagged, for prompt delivery, unless otherwise noted. They are the latest quotations available from Feedstuffs correspondents and are not necessarily those in effect on date of publication. The prices represent fair average trading values and do not necessarily represent extreme low or high levels at which individual sales might have occurred. A descriptive summary of supply and demand factors prevalent in the feed market appears on page 2.

ALFALFA MEAL

Cincinnati: Demand fair; trend steady; supply adequate; 17% dehydrated, 100,000 vitamin A $58.50@59.55; 17% dehydrated no A $46.50; 13% fine suncured $37@46.50.

New Orleans: Demand good; trend easier; supply heavy; 17% protein, vitamin A guaranteed $55@58; non-guaranteed $49@52, 15% $46@49.

Seattle: Demand slow; trend easy; supply good; 16% protein suncured $48.50 ton, delivered, carlots; 136,000 A unit dehydrated $64 ton, delivered, carlots.

Portland: Demand slow; trend lower; supply ample; 15% suncured $48.50, f.o.b. Portland; 15% suncured $40, f.o.b. California; dehydrated $50, f.o.b. California.

Philadelphia: Demand dull; supply fair; 17% dehydrated $61.

Ft. Worth: Demand improved; supply adequate; dehydrated 17% protein, no A guarantee $46, basis f.o.b. Plainview area; northern origin, 100,000 A $56@57.50, delivered Ft. Worth, depending on origin of tonnage, prompt shipment.

Boston: Demand light; supply fair; dehydrated, 17% $62; suncured, 13% $53.50, f.o.b. Colorado.

Minneapolis: Market easier; demand fair; quotations: 17% dehydrated, 100,000 units of vitamin A guaranteed $51@52.70; granules and oil treated $53.50@54.70 (bulk $2 @3 ton less); 18% dehydrated, 125,000 units of vitamin A guaranteed $56.70, granules or oil-treated $58.70 (bulk $3 ton less); non guaranteed $41.

Chicago: Demand slow; supply adequate; 17% dehydrated, with 100,000 units vitamin A guaranteed $51.50@52; 17% with no A guaranteed $45.50@46; 15% dehydrated no A $37.50@38; 13% fine ground suncured $43.50@44.

St. Louis: Demand slow; trend firm; supply ample; dehydrated 17%, 100,000 A $54 ton; suncured No. 1 fine ground 13% $43.50 ton.

Buffalo: Demand and supply fair; trend steady to lower; $66, bulk, Boston.

Omaha: Demand fair on 17% dehydrated 100,000 A, slow on rest; supply limited on 100,000 A, adequate on rest; 17% dehydrated non A, papers or burlap $37; 17% dehydrated, 100,000, papers or burlap $48; No. 1 fine ground suncured, papers or burlap $38; No. 1 ¼-in., burlaps $35; No. 2 ¼-in., burlaps $32.

Los Angeles: Demand slow; supply ample; trend steady; 15% suncured $43; 17% dehydrated $45@45.50.

Memphis: Demand fair; trend steady; supply adequate; dehydrated, 17% protein, guaranteed 100,000 units vitamin A $52.30.

Denver: Demand fair; trend steady; supply ample; $48, 17%.

Kansas City: Demand only fair; offerings adequate; market steady to slightly easier; 17% dehydrated alfalfa meal with 100,000 units vitamin A guaranteed on arrival $47@49, sacked, Kansas City; 15% 125,000 A guaranteed meal $52, sacked, Kansas City; no A guarantee $37@40, sacked, Kansas City; bulk pellets 100,000 A guaranteed $42.50; No. 1 fine ground suncured $35@37, sacked, Kansas City; No. 1 ¼-in. $33.50@36; No. 2 ¼-in. $33@34, sacked, Kansas City.

ALFALFA PELLETS

Denver: Demand fair; trend steady; supply ample; $51.

Omaha: Demand fair; supply limited; 17% dehydrated, 100,000 A $45 bulk, $48 sacked.

BARLEY FEED

New Orleans: Demand fair; trend steady; supply adequate; pulverized feed barley $46@48.

Portland: Demand good; trend higher; supply ample; rolled $59, ground $58.

Boston: Demand slow; supply good; $46.

Philadelphia: Demand dull; supply fair; pulverized $49.

Chicago: Demand fair to good; supply adequate; $37.

Baltimore: Demand fair; supply adequate; $46.

Ogden: Supply normal; rolled $45@50; whole $38@43.

Seattle: Demand fair; trend steady; supply good; whole $57 ton, ground $57 ton, rolled $58 ton, all ex-warehouse, l.c.l., sacked.

Los Angeles: Demand moderate; trend steady; supply ample; standard rolled $3.93, standard ground $3.89.

BENTONITE (SODIUM)

Chicago: Demand very good; supply adequate; f.o.b. Wyoming and South Dakota shipping points: granular, 30 mesh $16.50; fine granular, 80-100 mesh $12.75; powder, 200 mesh $13.50; f.o.b. Belle Fourche, S.D., minimum 30-ton carlot: 80 granular $12.50 net; 200 mesh fine $12.25 net.

BLOOD FLOUR

New Orleans: Demand fair; trend steady; supply heavier; $85@87.50, local origin.

Louisville: Demand dull; trend steady; supply good; $80@85 ton.

BLOOD MEAL

New Orleans: Demand slow; supply adequate; trend easier; $85@87.50, local origin.

Cincinnati: Demand fair; trend steady; supply adequate; $120.

Ogden: Supply normal; $95 ton in 100-lb. bags, f.o.b. Ogden.

Louisville: Demand slow; trend steady; supply good; $80@85 ton.

Chicago: Demand slow; supply adequate; $95@117.50 ton, guaranteed 80% protein.

Portland: Demand slow; trend lower; supply ample; $100.

Seattle: Demand slow; trend easy; supply ample; $80 ton, ex-warehouse, l.c.l.

Los Angeles: Demand fair; trend steady; supply ample; $4.25 a unit of ammonia.

BONE MEAL

Cincinnati: Demand fair; trend steady; supply adequate; $90 ton, sacked, f.o.b. Cincinnati.

Louisville: Demand dull; trend steady; supply ample; $70@75.

Omaha: Demand slow; supply ample; $80.

St. Paul: Market firmer; demand good; $80 in large lots.

Ft. Worth: Demand slow; supply sufficient; $55, sacked, f.o.b. Ft. Worth, local manufacture.

BONE MEAL (STEAMED)

Portland: Demand slow; supply ample; trend unchanged; $90.

Boston: Demand slow; supply fair; $86.

Seattle: Demand steady; trend firm; supply sufficient; $85 ton, ex-warehouse, l.c.l.

Denver: Demand fair; trend steady; supply adequate; $90.

St. Louis: Demand good; trend firm; supply adequate; $90@92 ton, sacked.

Buffalo: Demand good; trend steady; supply ample; $85 ton, sacked.

Louisville: Demand slow; trend steady; supply ample; $75@80.

Chicago: Demand slow; supply adequate; $67.50@85.

Los Angeles: Demand fair; trend steady; supply ample; domestic $89.50.

Ft. Worth: Demand good; supply very limited; 14% phosphorus, 31% calcium $76, 100-lb. paper-lined burlaps, f.o.b. Houston, last half March.

BREWERS DRIED GRAINS

Philadelphia: Demand dull; supply fair; $52.50.

Ft. Worth: Demand slow; supply moderate; 26%, nominal $50@51, prompt, delivered Ft. Worth.

Chicago: Demand slow; supply adequate; 24% $43@44.

Louisville: Demand slow; trend easy; supply normal; $45 ton.

St. Louis: Demand fair; trend firm; supply ample; $38 ton bulk, $43 ton sacked.

Buffalo: Demand poor; trend steady to lower; supply fair; $46.75, bulk, Boston.

Cincinnati: Demand poor; trend steady; supply adequate; $50.50@51.

Boston: Demand and supply good; 26% $52@54.75.

New Orleans: Demand fair; trend lower; supply ample; 24% $45@52.50.

Los Angeles: Demand good; trend steady; supply limited; $54, f.o.b. Van Nuys.

BREWERS DRIED YEAST

Denver: Demand fair; trend steady; supply adequate; $11 cwt.

Boston: Demand light; supply steady; 10¢ lb.

Chicago: Demand good; supply limited; 10@11½¢ lb. in carlots; 10¾@12½¢, l.c.l.

Milwaukee: Demand good; supply limited; 10¼@11½¢ lb. in carlots; 10¾@12½¢ lb., l.c.l.

Omaha: Demand good; supply limited; 11½¢ lb., carloads; 12½¢ lb., less than carload.

Buffalo: Demand good; trend steady; supply ample; $10.65 cwt.

Louisville: Demand slow; trend steady; supply normal; 10¢ lb.

St. Louis: Demand good; supply limited; 10¢ lb. in carlots; 10½¢ lb. in 5-ton lots; 11¢ lb. in ton lots; 11½@12¢ lb. in less than ton lots.

Pittsburgh: Carlots 10¢ lb.; 5-ton lots 11¢; ton lots 11½¢.

New Orleans: Carlots 10¢ lb.; 5-ton lots 11¢; ton lots 11½¢.

Cincinnati: Carlots 10¢ lb.; 5-ton lots 11¢; ton lots 11½¢.

New York: Carlots 9½¢ lb.; 10-ton lots 10¢ lb.; 5-ton lots 10½¢ lb.; ton lots 11¢ lb., f.o.b. New Jersey.

Portland: Demand slow; supply ample; trend unchanged; 13¢.

Los Angeles: Demand good; supply limited; trend steady; 10¢.

BUTTERMILK-CONDENSED

Portland: Demand slow; supply ample; trend unchanged; $4.75.

Philadelphia: Demand dull; supply fair; $4.25.

Boston: Demand poor; supply ample; 4¢ lb.

New Orleans: Demand fair; trend firm; supply sufficient; $4@4.25 cwt.

Los Angeles: Demand fair; trend steady; supply ample; 100-lb. drums $5.50; large barrels $4.75.

Ogden: Supply normal; $4.90, 100-lb. drum.

Chicago: Demand steady; supply fair; $3.50@3.75 cwt. in carlots.

Louisville: Demand fair; trend steady; supply ample; $4.25 cwt.

CALCITE CRYSTALS AND FLOUR

(All prices net, including freight and tax)

New York: Crystals $12.48, flour $9.42.

Buffalo: Crystals $14.30, flour $10.80.

Toledo: Crystals $15.77, flour $11.77.

Boston: Crystals $14.62, flour $10.62.

Limecrest, N.J.: Crystals $9.50, flour $6.50.

CALCIUM CARBONATE

Seattle: Demand steady; supply ample; trend unchanged; $14 ton, ex-warehouse, truck lots.

Minneapolis: Plain $10; iodized (⅛ lb. KI per ton) $13.50; iodized manganesed $15.05.

Chicago: Plain $8.55 ton in 100-lb. bags, delivered.

Cincinnati: Demand fair; trend steady; supply adequate; $8@9.

Los Angeles: Demand fair; trend steady; supply ample; meal and flour $10.53 ton, carloads; grits $13.03 ton, carloads.

CHARCOAL

New Orleans: Demand slow; trend steady; supply light; 40-lb. bags oak charcoal $2.40 @2.50; poultry charcoal $2.60 in 50-lb. bags.

Chicago: Demand quiet; supply limited; poultry charcoal $102 ton in 50-lb. multiwalls.

Boston: Demand slow; supply light; $95.

Los Angeles: Demand fair; trend steady; supply ample; poultry charcoal oak $2.40, 40-lb. bags in ton lots.

COCONUT MEAL

Portland: Demand slow; supply ample; trend unchanged; $68.

Seattle: Demand slow; trend easy; supply limited; $68 ton, ex-dock, April arrival from Philippines.

Los Angeles: Demand slow; supply ample; trend steady; cake, ex-dock, March $66@66.50.

COD LIVER OIL (FORTIFIED)

Boston: Demand slow; supply good; 600 D, 2,250 A 22¢ lb.; 300 D, 2,250 A 21¢; 300 D, 1,500 A 18½¢.

New York: Trend steady; price per lb. in 55-gal. drums (400 to 420 lb.): 300 ICU, 750 A 16@18¢, 1,500 A 17½@19½¢, 2,250 A 19@22¢, 3,000 A 19½@23¢; 600 ICU, 1,500 A 18@19½¢, 2,250 A 20@22¢, 3,000 A 22@23½¢; f.o.b. New York, New Jersey, Massachusetts or Pennsylvania; ranges include variance in offerings and f.o.b. shipping points.

CONDENSED FISH SOLUBLES

Boston: Demand active; supply adequate; 3½@3¾¢ lb.

Los Angeles: Demand good; supply limited; trend steady; 4½¢.

CORN GERM MEAL

St. Louis: Demand good; trend firm; supply limited; $44 ton bulk, $49 ton in burlap sacks, St. Louis.

CORN GLUTEN FEED AND MEAL

(All quotations for all cities are sacked basis, bulk basis $5 less)

Minneapolis: Feed $49.77, meal $69.77.
Atlanta: Feed $56.92, meal $76.92.
Birmingham: Feed $55.18, meal $75.18.
Boston: Feed $54.15, meal $74.15.
Chicago: Feed $44, meal $64.
Cleveland: Feed $51.04, meal $71.04.
Denver: Feed $53, meal $73.
Ft. Worth: Feed $51.50, meal $71.50.
Indianapolis: Feed $48.50, meal $68.50.
Kansas City: Feed $44, meal $64.
Louisville: Feed $50.11, meal $70.11.
New Orleans: Feed $52.88, meal $72.88.
New York: Feed $53.69, meal $73.69.
Norfolk: Feed $53, meal $73.
Philadelphia: Feed $53.23, meal $73.23.
Pittsburgh: Feed $51.50, meal $71.50.
St. Louis: Feed $44, meal $64.

CORN OIL MEAL

Cincinnati: Demand fair; trend steady; supply adequate; $53.80@54.

New Orleans: Demand fair; trend steady; supply adequate; $53.88@54.88.

Louisville: Demand dull; trend steady; supply light; $54.11.

COTTONSEED OIL MEAL

Portland: Demand slow; supply ample; trend unchanged; $62, f.o.b. Los Angeles.

Ogden: Supply normal; 41% $66@73.

Boston: Demand slow; supply good; $69.

Denver: Demand slow; trend steady to weak; supply adequate; $64.

Memphis: Demand dull; trend down; supply adequate; prime 41% protein, old process $51, sacked; new process, 41% solvent $47.50, sacked.

Wichita: Demand slow; supply ample; 41% $61.

New Orleans: Demand fair; trend easier; supply sufficient; 41% old process $69@71.50.

Cincinnati: Demand fair; trend steady; supply adequate; $58.50@61.50.

Philadelphia: Demand dull; supply fair; $68.

Seattle: Demand slow; trend steady; supply good; $78 ton, delivered, carlots, 41% expeller process.

Ft. Worth: Demand fair; supply adequate; carlots, sacked, central and north Texas origin, 41% old process $59@61; solvent, 41% low gossypol $56.50, delivered Ft. Worth; pellets $2 additional.

Los Angeles: Demand slow; supply ample; trend steady; $61.

Kansas City: Demand quiet; market easier; $51@51.50, sacked, Memphis for old process; $47@47.50, sacked, Memphis, for solvent.

Chicago: Demand slow; supply plentiful; hydraulic $62@62.50; solvent $57.50@58.

Buffalo: Demand fair; trend strong; supply good; $70.25, sacked, Boston.

Omaha: Demand slow; supply ample; 41% solvent $64, range size $67.50.

Atlanta: Demand slow; trend weak; supply ample; 41% $55, sacked, immediate.

Louisville: Demand fair; trend easy; supply ample; old process $60.74, new process $57.74.

A AND D FEEDING OIL

Boston: Demand slow; supply good; 600 D, 1,500 A 17¢ lb.; 300 D, 2,250 A 18¢; 300 D, 1,500 A 16¢; 300 D, 750 A 15¢.

Denver: Demand fair; trend steady; supply adequate; 2,250 units A, 300 D, 55-gal. drums 23¢ lb., sufficient drum.

New York: Trend steady; price per lb. in 55-gal. drums (400 to 420 lb.): 300 ICU, 750 A 13½@17½¢, 1,500 A 15½@19½¢, 2,250 A 17½@21½¢, 3,000 A 19½@21¢; 600 ICU, 1,500 A 16@20½¢, 2,250 A 18@19½¢, 3,000 A 20@25¢; f.o.b. New York, New Jersey, Massachusetts or Pennsylvania; ranges include variance in offerings and f.o.b. shipping points.

Buffalo: Demand steady; supply adequate; 300 D, 750 A 18½¢ lb.; 300 D, 1,500 A 20½¢ lb.; 300 D, 2,250 A 23½¢ lb.; 300 D, 3,000 A 26½¢ lb.; 600 D, 4,000 A 31¢ lb.; straight vitamin A feeding oil 10½@11½¢ per M. U., drum lots, drums included, basis Buffalo.

Chicago: Demand fair to good; supply adequate; straight A feeding oil, with 10,000 units vitamin A per gram 7⅛@9¢ a million units of vitamin A, l.c.l., packed in 55 gal. drums, f.o.b. Chicago, drums included.

Minneapolis: 10,000 A 32¢ lb.; 300 D, 2,250 A 20¢ lb.; 300 D, 1,500 A 18¢ lb.; 300 D, 750 A 16¢ lb.

Seattle: Demand and trend steady; supply ample; 300 D, 2,250 A 22¢ lb., 300 D, 1,500 A 19¢ lb., 300 D, 750 A 17¢ lb., all ex-warehouse, drums included.

D ACTIVATED ANIMAL STEROL, POWDERED

Cincinnati: Demand poor; trend steady; supply ample; 1,500 ICU 11@12¢; 3,000 ICU 18¢, warehouse.

Kansas City: Demand fair; trend steady; supply adequate; 10½@11¢ lb.

New York: Trend steady; price per lb. in 50- and 100-lb. bags or 100-lb. drums: 1,500 ICU 10@13.6¢ bagged, 11@12¢ drums; 3,000 ICU 16@19¢ bagged, 17@18¢ drums; f.o.b. New York and New Jersey.

DEFLUORINATED PHOSPHATE

Tupelo, Miss.: $49.50.
Houston: 19% $69.50.
Wales, Tenn.: $62.10.
Coronet, Fla.: Minimum phosphorus 17%, minimum calcium 34%, maximum fluorine .17% $56 net ton, f.o.b. Coronet in 100-lb. multiwall bags, $54 in bulk; minimum phosphorus 14.5%, minimum calcium 34%, maximum fluorine 0.145% $48 net ton, f.o.b. Coronet, in 100-lb. multiwall bags, $46 in bulk.

DICALCIUM PHOSPHATE

Denver: Demand limited; trend steady; supply adequate; $109.05.

Cincinnati: 18% phosphorus $87@90.

Portland: Demand slow; supply ample; trend unchanged; $100.

Minneapolis: 18.5% phosphorus, 24% calcium granular or fine ground $88.54 ton, delivered; $3 ton less in bulk.

Trenton, Mich.: Minimum phosphorus 21%, maximum fluorine .01% guaranteed $94.50, f.o.b. Trenton, in 100-lb. multiwall bags; minimum phosphorus 18½%, maximum fluorine .01% guaranteed $83.25, f.o.b. Trenton in 100-lb. multiwall bags.

Adams, Mass.: Minimum phosphorus 18½%, minimum 25% calcium, maximum .01% fluorine guaranteed $74 ton, f.o.b. Adams, in 100-lb. multiwall bags. Freight equalized with nearest producing point, carload basis.

Columbia, Tenn.: Minimum phosphorus 18½%, minimum 25% calcium, maximum .01% fluorine guaranteed $74 ton, f.o.b. Columbia, in 100-lb. multiwall bags. Freight equalized with nearest producing point, carload basis.

Bonnie, Fla.: Demand improving; supply adequate; minimum phosphorus 18½% granular $79.55. Freight equalized with closest dicalcium phosphate producing point, carload basis.

East St. Louis: 18½% phosphorus $83.25, bagged, f.o.b. cars.

Chicago: Demand fair; supplies adequate; stock food grade, 18.5% phosphorus, 20,000 lb. or more $83.25 per net ton in 100-lb. papers, basis Chicago Heights, Ill., or Nashville, Tenn., less than 20,000 lb. $93.25; 21% phosphorus, 20,000 lb. or more $94.50, basis Chicago Heights and Nashville, less than 20,000 lb. $104.50; freight equalized with St. Louis, Trenton, Mich., and Godwin, Tenn.; bulk, boxcars or hoppers $3 net ton less than bagged material.

DISTILLERS DRIED GRAINS

Boston: Demand slow; supply adequate; light $63.75, dark $66.25@67.

New Orleans: Demand slow; supply limited; trend steady; $58@63.

Louisville: Demand good; trend steady; supply fair to light; bourbon light $57, dark $58, solubles $76.

Buffalo: Demand and supply fair; trend steady; $61, bulk, Boston.

Cincinnati: Demand fair; trend steady; supply tight; $58@60.

Philadelphia: Demand dull; supply light; $63.

DRIED BEET PULP

New Orleans: Demand fair; trend steady; supply adequate; $50@64, March shipment.

Ft. Worth: Demand slow; supply moderate; carlots, 50-lb. papers $63@65, delivered Ft. Worth, March shipment.

Boston: Demand and supply good; $66.50 @68.

Buffalo: Demand poor; trend steady; supply fair; $68.50, sacked, Boston.

Atlanta: Demand slow; trend steady; supply ample; $70.50, sacked, immediate.

Seattle: Demand good; trend strong; supply tight; $65 ton, delivered, carlots.

Ogden: Supply normal; $45@50 ton.

Los Angeles: Demand fair; trend steady, supply ample; $51.02, paper bags.

DRIED BUTTERMILK

New Orleans: Demand slow; supply limited; trend steady; $11.75@12 cwt.

Wichita: Demand slow; supply adequate; $8.25 cwt.

Boston: Demand poor; supply short; 11½¢ lb.

Minneapolis: Demand improved; supplies adequate; $9.25@10.50 cwt.

Buffalo: Demand good; trend firmer; supply limited; $10.85 cwt.

Louisville: Demand slow; trend steady; supply normal; $9.50@10.

Chicago: Demand light; supply adequate; medium acid 9@9¼¢; sweet cream 10@10½¢ cwt. in carlots.

Ft. Worth: Demand very slow; supply extremely limited; local production $12 cwt., f.o.b. Ft. Worth.

Ogden: Supply normal; $8.65, 100-lb. bag.

Los Angeles: Demand fair; trend steady; supply ample; $11.

DRIED CITRUS PULP

New Orleans: Demand good; supply sufficient; trend steady; $45@48.

Boston: Demand light; supply adequate; $52.95.

Buffalo: Demand fair; trend steady; supply good; $35, sacked, f.o.b. Florida points.

Atlanta: Demand fair; supplies ample on pulp, limited on meal; trend steady; pulp $44, meal $41.50, sacked, immediate.

Los Angeles: Demand good; trend steady; supply ample; f.o.b. southern California producers' plants: orange $47 sacked, $42 bulk.

DRIED SKIM MILK

Los Angeles: Demand fair; trend steady; supply ample; $13.75.

Boston: Demand poor; supply plentiful; 12¢ lb.

Minneapolis: Market steady to easier; demand fair; supplies fair; $11@12 cwt.

Chicago: Demand light; supply adequate; $11.25@11.50 cwt. in carlots.
Cincinnati: Demand fair; trend steady; supply adequate; 11½¢.
Louisville: Demand fair; trend steady; supply ample; $11.50@12 cwt.
Buffalo: Demand good; trend steady; supply ample; $11.50 cwt.
Portland: Demand good; supply ample; trend unchanged; $13.
Philadelphia: Demand and supply fair; $12.50.
New Orleans: Demand light; supply ample; trend steady; $11.25@11.50 cwt.

DRIED WHEY

Denver: Demand fair; trend steady; supply adequate; $7.50 cwt.
New Orleans: Demand fairly good; trend steady; supply ample; $6@6.25 cwt.
Cincinnati: Demand fair; trend steady; supply adequate; $6.
Boston: Demand poor; supply plentiful; 6¢ lb.
Philadelphia: Demand dull; supply fair; $6 cwt.
Portland: Demand good; supply ample; trend unchanged; $6.50.
Ogden: Supply normal; $6.90, 100-lb. bag.
Ft. Worth: Demand fair; supply adequate; carlots, standard $6 cwt., sacked, delivered Ft. Worth or any Texas point or in ton lots, f.o.b. warehouse, Ft. Worth.
Seattle: Demand steady; supply ample; trend unchanged; $7 cwt., ex-warehouse, l.c.l.
Kansas City: Trend steady; demand fair; straight grade $6 cwt.; partially delactosed $6.25 cwt.
Los Angeles: Demand fair; trend steady; supply ample; fortified $6.15, unfortified $6.
Minneapolis: Market steady to easier; demand limited; $5.25@5.50 cwt.
Chicago: Demand steady; supply adequate; $6 cwt. in carlots.
Louisville: Demand fair; trend firm; supply normal; $6@6.50 cwt.
Buffalo: Demand poor; trend steady; supply fair; $6 cwt., delivered.

FISH MEAL

Portland: Demand slow; trend lower; supply ample; $1.95, f.o.b. Vancouver.
Boston: Demand steady; supply adequate; $143@145.
Buffalo: Demand very quiet; trend easier; supply ample; 60% protein menhaden $147 ton, bulk; $150, sacked.
Cincinnati: Demand fair; trend steady; supply adequate; $155@160.
New Orleans: Demand slow; supply adequate; trend steady; $150@153 on 60%.
Denver: Demand fair; trend weak; supply more than adequate; $2 unit, Seattle.
Los Angeles: Demand less active; trend steady; supply ample; $2.25@2.50 a unit of protein.
Atlanta: Demand slow; trend weak; supply ample; 60% $138, sacked, immediate.
Louisville: Demand slow; trend easy; supply normal; $160@165 ton.
Minneapolis: Market unchanged; demand fair; $1.75@1.80 a unit of protein, West Coast for 70% herring meal; 60% meal $154.
Chicago: Demand good; supply increasing; menhaden fish meal, 60% protein, f.o.b. East Coast $140 ton; 60% blended West Coast $127.50; Northwest herring-salmon blend $127.50; herring meal 73% protein $1.75 a unit of protein.
Seattle: Demand slow; trend easy; supply good; Canadian herring meal $2.05 a unit protein, carlots, Seattle; local production $2.30 a unit protein.
Ft. Worth: Demand fair; supply more limited; 60% Peruvian $148, f.o.b. Houston, last half March.
Ogden: Supply average; $2.20 a unit, f.o.b. Coast; 65% $171@173.

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HAY

Seattle: Demand good; trend firm; supply sufficient; $45 ton, delivered, carlots, U.S. No. 2 green.
Los Angeles: Demand improved; supply ample; trend steady; U.S. No. 1 $32@34; U.S. No. 3, leafy $30@32; U.S. No. 2, green $31@32; U.S. No. 2 $28@29.50.
Ft. Worth: Demand fair for alfalfa, practically nil for others; supply sufficient; carlots, baled, No. 1 alfalfa $36@38, No. 2 $34@36; prairie No. 2 $26@28; Johnson grass No. 2 $24@26, delivered TCP.
Louisville: Demand fair; trend steady; supply heavy; No. 1 hay, timothy, clover, alfalfa and mixed timothy and clover $30, No. 2 $28; lespedeza $25 and $22; straw $14@15.
Buffalo: Demand very weak; No. 2 timothy $18 ton; No. 2 alfalfa $25@28; straw, strong $12@15.
St. Louis: Demand fair; trend steady; supply ample; No. 1 timothy $25@26 ton; No. 1 clover $15@20 ton; No. 1 alfalfa $21@25 ton; No. 1 prairie $25@26 ton; wheat straw $14@15 ton.
New York: Demand slow on domestic timothy; trend unsteady; supply ample; domestic timothy prices have weakened considerably due to intensified competition from Canadian supplies trucked in and offered at comparatively low levels; timothy No. 1 $31, No. 2 $28@29, No. 3 $25@26.
Ogden: Supply normal; $1.25 bale; $24@30 ton in the barn.
Portland: Demand good; supply limited; trend unchanged; $43.
Philadelphia: Demand dull; supply fair; $28.
Boston: Demand and supply steady; No. 2 timothy $35; second cutting alfalfa $47.
Cincinnati: Demand slow; trend steady; supply adequate; No. 1 timothy (new) $21; first cutting No. 1 alfalfa (new) $21; second cutting, No. 1 $25; fancy No. 1 clover and timothy mixed $27; No. 1 red clover $22; bright wheat or oat straw $14.
New Orleans: Demand dull; trend easier; supply plentiful; timothy and clover $28@30, baled alfalfa $35@36, prairie $24@25.
Wichita: Demand slow; supply plentiful; prairie $18@22, alfalfa $20@24.

HOMINY FEED

Boston: Demand slow; supply plentiful; bulk $52, sacked $56.50.
Cincinnati: Demand fair; trend steady; supply adequate; $46@49.
New Orleans: Demand fair; trend steady to lower; supply adequate; $48.50@51.

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Seattle: Demand slow; trend steady; supply ample; $61 ton, delivered, carlots, sacked.
Buffalo: Demand good; trend steady to higher; supply fair; $53 bulk, Boston.
Louisville: Demand fair; trend steady; supply ample; $48.10.
Chicago: Demand good; supply tightening; $47.50@48.
Kansas City: Activity quiet; demand fair; offerings light; $45, sacked, Kansas City, white, yellow or mixed.
Memphis: Demand poor; trend steady; supply adequate; white $47, yellow $51.

LINSEED OIL MEAL

Portland: Demand slow; supply ample; trend unchanged; $64, f.o.b. Los Angeles.
Philadelphia: Demand and supply fair; $70.
Boston: Demand slow; supply short; $49.50, bulk, Minneapolis.
Cincinnati: Demand fair; trend steady; supply adequate; $64.25@70.25.
New Orleans: Demand slow; trend steady; supply ample; 32% or higher $68.75@71.25.
Wichita: Demand fair; supply sufficient; 34% $75.
Louisville: Demand slow; trend easy; supply ample; new process $63.45; old process $70.45.
Omaha: Demand slow; supply ample; 34% expeller $68.50, pellets $71; 36% solvent $61.50, pellets $64.
Minneapolis: Market easy; demand light; directions slightly improved. Quotations: 36% $46@47, bulk, Minneapolis; 22% flaxseed screenings oil feed $34.
Chicago: Sales were very slow during the week ending March 7. Supplies were plentiful and prices fell considerably. Quotations March 7: solvent linseed oil meal $48.50, expeller $55.
Denver: Demand fair; trend weak; supply adequate; 36% $68.
Los Angeles: Demand slow; trend steady; supply ample; $62@63.
Kansas City: Light demand; offerings adequate; trend easier; $46.50@47, bulk, Minneapolis, for solvent; $53.50, old process.
Seattle: Demand slow; trend easy; supply good; $78 ton, delivered, carlots, 34% solvent process.
Ft. Worth: Demand slow; supply adequate; carlots, 36% or better $70.89, basis old freight rate, March-June, delivered Ft. Worth; pellets $2.50 premium.

MALT SPROUTS

Cincinnati: Demand fair; trend steady; supply adequate; No. 1 $38.50@39.
Chicago: Demand and supply fair; No. 1 $33@34.
St. Louis: Demand fair; trend steady; supply ample; No. 1 bulk $33 ton; No. 1 sacked $38 ton; No. 2 bulk $30 ton.
New Orleans: Demand fair; trend steady; supply adequate; No. 1 $40@41.

MEAT SCRAPS

Denver: Demand fair; trend steady; supply adequate; 50% protein $67.
Wichita: Demand good; supply about offsets demand; 50% $70, f.o.b. plant; 55%, no quotations, no offerings.
New Orleans: Demand slow; supply ample; trend steady; 50% $75.50@82.50.
Cincinnati: Demand fair; trend steady; supply adequate; 50% $69.50 ton, sacked, f.o.b. Cincinnati.
St. Paul: Market softer; demand fair; 50% meat and bone scraps $73; 55% meat and bone scraps $76.
Chicago: Demand slow; supply adequate; 50% protein $65@70; 55% $80.
New York: Demand fair; trend steady; supply sufficient; 50% $67.50, 55% $72.50 bulk; 50% $70, 55% $75 sacked.
Boston: Demand fair; supply steady; $1.10 a protein unit; converted 50% $67.50.
Portland: Demand slow; supply ample; trend unchanged; $1.40.
Los Angeles: Demand fair; trend steady; supply ample; $1.55@1.60 a unit of protein.
Kansas City: Demand fair; trend steady; 50% meat and bone scraps $70@72.50, sacked, Kansas City.
Seattle: Demand slow; trend easy; supply good; $67.50 ton, ex-warehouse, truck lots, 50% protein.
Ft. Worth: Demand good; supply moderate; meat and bone, 50% $67@68, sacked, f.o.b. or delivered Ft. Worth.
Ogden: Supply normal; $75 ton in 100-lb. bags.
St. Louis: Demand fair; trend higher; supply ample; 50% $68@72 ton bulk, $72@77 ton in paper sacks, $71@76 ton in burlap sacks.
Buffalo: Demand good; trend steady to higher; supply tight; 50% meat scraps $70 ton bulk, $73 sacked.
Buffalo: Demand dull; trend steady; supply heavy; $65@70 ton.
Omaha: Demand slow; supply ample; $72.50.

MILLET

St. Louis: Demand fair; trend steady; supply ample; recleaned Early Fortune $3.50 cwt., sacked; recleaned White Proso $3.60 cwt., sacked.

MILLFEED

Minneapolis: Market off $1@1.50 ton, with demand light and offerings not pressing. Quotations: Bran $40@41, standard midds. $40@40.50, flour midds. $44@46, red dog $46@47.
Kansas City: Market easy; demand fair; offerings improved; bran $37.50@38, sacked, Kansas City; shorts $38.25@38.75, sacked, Kansas City.
Denver: Demand fair; trend weaker; supply ample; bran $40.50, shorts $41.50, mill run $41.
Wichita: Demand poor; supply ample; basis Kansas City, March 6: bran $37@37.50, shorts $38@38.50; bran declined $2.25 ton and shorts $1.50 ton, compared with the preceding week.
Omaha: Demand and supply fair; bran $37.50, shorts $38.25; standard midds., bulk $36.
Ft. Worth: Demand slackened; trend easier; supply sufficient; carlots, burlaps, prompt, wheat bran $44.50@45.50, gray shorts $45.50@46.50, delivered common points; $1.50 lower on bran and unchanged to 50¢ lower on shorts, compared with previous week.
Chicago: Sales were fair during the week ending March 7. Increased production on the part of flour mills pushed more supplies on the market. Prices fell about $1. Quotations March 7: bran $43@43.50, standard midds. $42.50@43, flour midds. $47@48, red dog $50@51.
St. Louis: Demand poor; trend steady to weak; supply heavy; bran $41.50@42, shorts $41.75@42.25, St. Louis switching limits.
Cincinnati: Demand fair; trend steady; supply adequate; bran $48@48.50, middlings $47@48.50.
Louisville: Demand fair; trend easy; sup-

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ply good; bran $47.20, mixed feed $47.20, shorts $46.70, middlings $49.70.

Buffalo: Sales continued quiet. Users are in the market only for spot needs. Bran and middlings ended up $1; heavy feeds were unchanged; bran $46.50@47, standard midds. $44@47.50, flour midds. $50@53, red dog $50@53.

Boston: Demand spotty; supply adequate; bran $54, middlings $52, both Canadian.

Philadelphia: Demand spotty; supply ample; bran $53, standard midds. $54, red dog $58.

New York: Demand slow to fair; trend steady; supply ample; improvement has been noted in poultry areas, particularly chick feeds. Slow absorption of formula feeds in many sections has been reported; bran $53.50@54, standard midds. $54.50@55.

New Orleans: Demand fair; trend firmer; supply limited; bran $47@47.50, shorts $48@48.50.

Memphis: Demand poor; trend weaker; supply ample; wheat bran $44, gray shorts $45, standard midds. $44.50.

Seattle: Demand slow; trend easy; supply good; $41 ton, delivered common transit points, carlots.

Portland: Demand slow; trend lower; supply ample; $40.

Ogden: Supply average; to Utah and Idaho: red bran and mill run $40, middlings $45; to Denver: red bran and mill run $47, middlings $52; to California: red bran and mill run $47.50, middlings $52.50, f.o.b. San Francisco and Los Angeles.

Los Angeles: Demand moderate; trend steady; supply ample; mill run, Utah-Idaho billing, sacked $45@48.50; red bran, delivered CCP, sacked $55.50.

MINERAL FEED

Wichita: Demand good; supply insufficient; all-purpose with iodine, 50-lb. blocks $92.50, 100-lb. bags $87.50, f.o.b. plant.

Portland: Demand slow; supply ample; trend unchanged; $42.

Sioux City: 50-lb. mineral blocks, 8.2% phosphorus $92; 7.5% phenothiazine sheep mineral blocks $4 each.

Ogden: Supply average; $105 ton, 50-lb. blocks; $95 ton, granular, 50-lb. bags.

Ft. Worth: Demand fair; supply ample; all-purpose granules $82, block $92; mineral phosphorus 6%, granules $95, block $105; cattle-sheep mineral, 7% phosphorus, granules $92, block $101; hog mineral phosphorus 3½%, granules $82, phosphorus 2% $69 (all in 50-lb. paper bags).

Seattle: Demand steady; supply ample; trend unchanged; $85 ton for high phosphorus mixtures; $44 ton for competitive brands.

MOLASSES

Denver: Demand up; trend steady; supply adequate; 13½¢, f.o.b. New Orleans.

Memphis: Demand poor; trend steady; supply ample; blackstrap 13¼¢ gal., tank car, f.o.b. New Orleans.

New Orleans: Demand fair; trend steady; supply adequate; 13⅝@14¢ gal. in tank cars, f.o.b. New Orleans.

Cincinnati: Demand fair; trend steady; supply adequate; 13@13½¢ gal., New Orleans.

Louisville: Demand fair; trend firmer; supply normal; 13¼¢ gal., tank car lots, Gulf ports.

Buffalo: Demand good; trend steady to higher; supply fair; 16½¢ gal., f.o.b. Albany.

Atlanta: Citrus molasses—demand good; supply limited; trend strong; $20 ton, bulk, f.o.b. Florida producing points, immediate.

Minneapolis: Market steady to firmer at 13½¢ gal., f.o.b. New Orleans; $36 ton, West Coast.

New York: Trend steady; blackstrap 16¢ gal., tank cars, tank wagons, f.o.b. New York.

Boston: Demand steady; supply ample; 16½¢ gal., tank cars.

Portland: Demand slow; supply ample; $26.

Ft. Worth: Demand good; supply moderate; blackstrap 15¢ gal., f.o.b. Houston, carlots, delivered Ft. Worth, cars and/or truck $32.65, seller's market price on date of shipment; maximum 16¢ March; 16½¢ April-May shipment.

Seattle: Demand steady; supply good; $26 ton, f.o.b. Seattle, tank car lots.

Kansas City: Trend slightly easier; demand moderate; for nearby shipment 13@14¢ gal., New Orleans; March 13¼@14¢; April 13¼@14¢.

Los Angeles: Demand good; trend steady; supply ample; $25, f.o.b. tank cars; $25.25, f.o.b. tank trucks, both Los Angeles harbor.

Beaumont: Trend steady; blackstrap 15¢ gal., tank cars, tank wagons, f.o.b. Beaumont.

NIACIN

New York: Trend firm; $8 kilo, 50-kilo lots; $8.10 kilo, 10-kilo lots; $8.20 kilo, 5-kilo lots; $8.30 kilo, 1-kilo lots; freight prepaid or paid to destination.

OAT PRODUCTS

Portland: Demand good; supply ample; trend unchanged; rolled $67, ground $65, cleaned $68.

Cincinnati: Demand fair; trend steady; supply adequate; reground oats $20@21; pulverized white oats $46; rolled oats $86.

Boston: Demand steady; supply adequate; white pulverized, domestic $50.50; Canadian $48.50; reground oat feed, Canadian $19.25.

Philadelphia: Demand dull; supplies fair to light; pulverized white oats $49.50, domestic oat feed $22.50, Canadian $29.50.

Louisville: Demand fair; trend up slightly; supply ample; reground $20.20, rolled oats $83.70, feeding oatmeal $77.70, pulverized white oats $46.70, crimped white oats $64.70.

St. Louis: Demand fair; trend lower; supply ample; reground oat feed $14 in 100-lb. burlap sacks; pulverized white oats $45 ton, choice $46.

Los Angeles: Demand slow; trend weaker; supply ample; white pulverized $62.

Memphis: Demand poor; trend weaker; supply ample; 3½% protein, reground oat feed $18.30.

New Orleans: Demand very light; trend steady; supply adequate; steam crimped oats $66@68; pulverized white oats $46@51; mixed feed oats $39@41.

Seattle: Demand and trend steady; supply good; feed oats $64 ton, ground oats $64 ton, rolled oats $68 ton, all ex-warehouse, l.c.l.

Ft. Worth: Demand fair; supply adequate; oat millfeed $42.80; reground oat millfeed $24.65, delivered.

Minneapolis: Sales remain somewhat scattered and spotty, but inquiry is said to be better. Quotations: feeding rolled oats $80@81, standard pulverized $46@48.50, feeding oatmeal $65@67, reground oat feed $14.

Chicago: Demand stagnant; supply adequate; reground oat feed $13; fine ground feeding oatmeal $72@74; feeding rolled oats $80@82.

OYSTER SHELL

Portland: Demand slow; supply ample; trend unchanged; western $30, eastern $35; granite and crystal grits, both $25.

COTTONSEED OIL MEAL FUTURES

Closing prices of cottonseed oil meal (41% protein) on the Memphis Merchants Exchange in dollars per ton (bulk):

	March 2	March 5	March 6	March 7	March 8
March	42.00@ 43.00	42.00@ 43.00	42.00@ 42.50	42.50@ 43.50	42.50@ 43.50
May	43.50@ 44.50	43.50@ 44.50	42.75@ 44.00	43.00@ 44.00	43.00@ 44.50
July	45.75@ 46.50	....@ 45.75	44.75@ 45.75	44.35@ 45.00	45.00@ 45.25
January	....@ 50.00	49.25@ 50.25	49.00@ 50.25	48.25@ 49.50	....@ 49.00
September	47.00@ 48.50	47.00@ 48.00	46.50@ 48.00	46.50@ 48.00	46.50@ 48.00
October	49.50@ 50.25	49.35@ 49.50	48.50@ 50.00	48.35@ 49.00	48.25@ 48.50
December	49.75@ 50.00	49.25@ 50.00	48.50@ 50.00	48.25@ 49.50	48.25@ 49.00

SOYBEAN OIL MEAL FUTURES

Closing prices of soybean oil meal (basis Decatur, Ill.) on the Chicago Board of Trade and on the Memphis Merchants Exchange, in dollars per ton (bulk basis):

CHICAGO

	March 2	March 5	March 6	March 7	March 8
March	48.00@ 48.15	47.15@ 47.25	46.75@ 46.80	46.25@ 46.35	46.50@ 46.70
May	49.60@ 49.80	....@ 49.00	....@ 48.10	47.70@ 47.80	48.20@ 48.40
July	51.35@ 51.45	....@ 50.70	....@ 49.75	....@ 49.30	49.75@ 49.90
August	....@ 52.20	....@ 51.50	....@ 50.60	....@ 50.15	50.65@ 50.75
September	50.75@ 51.00	50.25@ 51.00	49.75@ 50.00	49.00@ 49.25	49.25@ 49.75
October	48.00@ 48.15	47.75@ 48.25	47.50@ 48.00	47.50@ 48.00	47.50@ 48.00
December	48.00@ 48.15	47.75@ 48.25	47.50@ 47.75	47.50@ 47.70	47.75@ 48.00

MEMPHIS

	March 2	March 5	March 6	March 7	March 8
March	....@ 48.25	47.25@ 47.35	....@ 46.65	46.40@ 46.65	....@ 46.70
May	....@ 49.75	....@ 48.85	....@ 48.15	47.75@ 48.00	....@ 48.05
July	51.50@ 52.00	....@ 50.70	49.60@ 49.75	49.40@ 49.50	....@ 49.75
August	....@ 52.20	51.50@ 51.60	....@ 50.50	....@ 50.25	50.50@ 50.65
September	50.50@ 50.75	49.85@ 50.25	....@	....@ 49.00	....@ 49.15
October	48.00@ 48.25	47.75@ 48.00	....@	47.50@ 48.00	47.70@ 48.00
December	47.75@ 48.25	47.25@ 48.00	47.50@ 47.75	47.50@ 48.00	47.70@ 48.00
January	47.75@ 48.25	47.00@ 48.00	....@	47.50@ 48.00	47.50@ 48.00

Boston: Demand and supply steady; in paper $22.34.

Cincinnati: Demand fair; trend steady; supply adequate; $20.45.

New Orleans: Demand fair; trend down slightly; supply ample; $15@16.25, local origin.

Seattle: Demand steady; supply good; trend unchanged; eastern $35 ton, western $28 ton, both ex-warehouse, l.c.l.

Los Angeles: Demand and trend steady; supply ample; local $18.25, eastern $26.

Louisville: Demand good; trend up slightly to cover increased freight; supply normal; approximately $20.50 ton, on 80-lb. packages; 25¢ higher in 50's, 50¢ higher in 25's.

PEANUT OIL MEAL

Atlanta: Demand slow; trend steady; supply limited; 45% $57, sacked, immediate.

PEAT MOSS

New Orleans: Demand slow; trend steady; supply adequate; standard bales German moss $3@3.45.

Chicago: Demand good; supply limited; $3.65@3.75 standard 7½ cu. ft. bale.

Boston: Demand steady; supply adequate; $2.90@3 bale.

POTASSIUM IODIDE, U.S.P.

New York: Trend steady; U.S.P. granulated and powder, free-flowing powder $1.90 lb. in 200-lb. lots, $1.92 lb. in 100-lb. lots, $1.95 lb. in 25-lb. lots; 90% KI in calcium stearate, calcium carbonate or magnesium carbonate mixtures $1.81 lb. in 200 and 250 lb. lots, $1.83 lb. in 100 lb. lots, $1.86 lb. in 25 lb. lots, f.o.b. New Jersey; freight prepaid except on 25 lb. lots.

St. Louis: Demand fair; trend firm; supply ample; 100% pure potassium iodide, U.S.P., 250-lb. average in drums $1.90, 100-lb. lots in fiber drums $1.92; potassium iodide calcium stearate mixture, 225 lb. in leverpak drums $1.81, 100-lb. lots in fiber drums $1.85.

RIBOFLAVIN

New York: Trend firm; feed grade (in feed supplements): 4½¢ gram in 3.63 to 16 gm./lb. mixtures, freight prepaid or paid to destination.

RICE BY-PRODUCTS

New Orleans: Demand slow; trend easier; supply limited; $48@49 on bran; no quotes on hulls.

Memphis: Demand poor; trend steady; supply limited; bran $35, sacked, f.o.b. Arkansas points.

Atlanta: Demand slow; trend weak; supply ample; bran $44, sacked, immediate.

Los Angeles: Demand moderate; trend stronger; supply ample; bran $57.81.

Ft. Worth: Demand fair; supply scarce; carlots, rice bran $33@34, prompt shipment, f.o.b. south Texas rice mills; hulls $3@4, f.o.b. mills.

SCREENINGS

Minneapolis: Demand is slow, but some improvement in interest was noted; prices steady. Quotations: country run $14@18, lights $2@12, mediums $12@20, heavies $20@30; Canadians $12, bulk, Duluth; Canadian ground $22, sacked; flax screenings $17.

Buffalo: Demand and supply fair; trend steady; ground, sacked $27.50, New York; unground, bulk $19.25, New York.

SOFT PHOSPHATE WITH COLLOIDAL CLAY

Chicago: $22@23.75.
Kansas City: $22.15@22.90.
St. Louis: $21.40@22.
Des Moines: $22.50.
Philadelphia: $21.85@22.15.
Minneapolis: $22.15@22.85.
Buffalo: $22.50@23.10.
Atlanta: $18@18.70.
Memphis: $19.40@19.95.

SORGHUMS

Cincinnati: Demand fair; trend steady; supply adequate; $2.68.

Ft. Worth: Demand fair; supply sufficient; carlots, bulk, No. 2 yellow $2.20@2.25, delivered, Texas common points.

Los Angeles: Demand moderate; trend steady; supply ample; No. 2 milo, delivered CCP, prompt $2.70.

SOYBEAN OIL MEAL

Ft. Worth: Demand fair; supply sufficient; carlots, 44% $65@70.50 depending on origin; truck lots $63@64, prompt, delivered Ft. Worth.

MILLFEED FUTURES

The following is a comparison of settling prices at Kansas City for March 1 and 8:

Bran—	March 1	March 8
March	$38.20@ 39.00	$37.75@ 38.50
April	38.50@ 40.00	38.75@ 39.00
May	36.75@ 37.50	36.00@ 37.00
Shorts—		
March	$38.40@ 39.00	$38.50@ 39.00
April	40.50@ 42.00	....@ 41.25
May	40.90@ 43.75	....@ ....

Los Angeles: Demand slow; supply ample; trend steady; $71.57@72.57, delivered CCP.

Decatur: Demand fair; supply adequate; 44% bulk, unrestricted $46.50.

Chicago: Sales during the week ending March 7 were reported fair. Supplies were plentiful and prices fell about $2. Quotations March 7: 44% protein soybean oil meal $56@56.50.

Atlanta: Demand slow; trend weak; supply ample; 44% $63.50, sacked, immediate.

Louisville: Demand slow; trend easy; supply ample; $58.11 ton.

Kansas City: Demand slow; offerings adequate; trend easy; market has hit a new low for the season at $42@42.50, bulk, Decatur, for Kansas City and West; unrestricted $46@46.50, bulk, Decatur.

Ogden: Supply normal; $56@90.

Minneapolis: Prices fell $2@3 ton this week as demand lagged and offerings remained plentiful; quotations: $38.50@40, bulk, Decatur.

Memphis: Demand slow; trend down; supply ample; prime 44% solvent $55, sacked, f.o.b. Memphis.

New Orleans: Demand slow; supply plentiful; trend steady; 40% $65@68.

Cincinnati: Demand fair; trend steady; supply adequate; $48@48.50, bulk, Decatur.

Boston: Demand slow; supply plentiful; $46, bulk, Decatur.

Philadelphia: Demand spotty; supply ample; $48.50, bulk, Decatur.

Portland: Demand slow; trend lower; supply ample; March $42, April $46.

Seattle: Demand fair; trend easy; supply ample; $72.50 ton, delivered, sacked, carlots.

TANKAGE

St. Paul: Market easier; demand improved; 60% digester $70.

Los Angeles: Demand improved; trend steady; supply ample; $1.40 a unit of protein.

Kansas City: Demand fair; offerings adequate; 60% digester $72.50@75, sacked, Kansas City.

Ft. Worth: Demand good; supply moderate; 60% digester $76@80, f.o.b. Ft. Worth.

Omaha: Demand slow; supply ample; $72.50.

Louisville: Demand dull; trend steady; supply good; $67.50@70 ton.

Chicago: Demand good; supply adequate; 60% protein $67.50@75.

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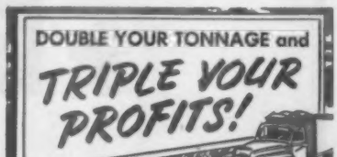

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AFMA STATEMENT

(Continued from page 1)

AFMA committees—the feed control relations committee and the AFMA Nutrition Council's sub-committee on nutritional standards—and his staff have been charged with carrying out these policies in the past, and a third committee—the feed control relations committee of the AFMA Dog Food Division—will be added to these efforts in the near future.

Urged to Cooperate

Mr. Glennon urged all interested parties to work closely with these AFMA committees "for the good of the feed industry, state officials and our customers."

He said that during recent years some confusion has arisen when individual feed manufacturers have prematurely and independently advised state feed control officials concerning pending legislation or changes in already existing legislation and regulations.

"When such officials are faced with conflicting advice," Mr. Glennon said, "it becomes difficult, and perhaps impossible, to know the wishes of the feed manufacturing industry. By working together, our concerted efforts will benefit all."

Policy Statement

The complete policy statement says:

"One of the important functions of the American Feed Manufacturers Assn., through the activities of its committees and authorized representatives, is to encourage the manufacture and use of nutritionally adequate feeds for livestock and poultry.

"Free competition among manufacturers and the freedom of product choice among farmers and feeders tend to promote the production of feeds designed to yield the most economical and profitable livestock and poultry production. It is the purpose of the feed industry to interpret the results of research into economical feeds. Advances in research are of such diversity and occur with such frequency that it is impractical to regulate the ingredients, the level of nutrients and feeding programs. Recommendations of experiment stations, academic and industrial laboratories and the National Research Council are available to the feed industry permitting immediate translation of proven research into manufactured feed.

"The feed industry makes use of all sources of information in improving its product and this improvement is the responsibility of the feed industry. These objectives of the feed industry can best be accomplished by freedom of the manufacturer to name and recommend use of its products and the privilege of the manufacturer to sell any material that satisfies the object for which the feed is intended so long as the product is within the guarantees made for it.

"The primary objective of feed control is to see that all products conform to the guarantees made by the manufacturer. This can be accomplished most satisfactorily when the following conditions are fulfilled:

"(1) The product must be identified by name.

"(2) Net weight must be shown.

"(3) It must conform to guarantees made by manufacturer.

"(4) It must contain a list of ingredients.

"(5) It must bear guarantor's name and address.

"The primary purpose of the label is to show the above requirements but may include feeding directions.

"Feed control should be self-supporting and all feeds offered for sale should be subject to feed inspection and feed control fees. The fees so collected should be used solely for feed control and the income and use of all fees should be published as a public record."

This statement was recommended to the AFMA board in a report from the nutritional standards committee of the Nutrition Council of the AFMA. (Feedstuffs, March 3, page 36.)

Describing the work of the AFMA committees relating to feed control, Mr. Glennon explained that the feed control relations committee has had major responsibility for direct action and will undoubtedly continue to be the most active in this field.

First organized in 1909, and in continuous operation since that time, the feed control relations committee has been very instrumental in developing excellent relations between members of the feed industry and the Association of American Feed Control Officials, the Food and Drug Administration and other federal and state agencies, Mr. Glennon said.

He commented further that this group was also responsible for developing the Model Feed Bill in 1952 (which is currently being revised), and cooperating with state and regional feed and grain associations in matters pertaining to feed legislation and regulations.

The second group Mr. Glennon cited was the AFMA Nutrition Council's sub-committee on nutritional standards. Acting as a technical advisory group, this committee studies definitions and regulations for both feed ingredients and manufactured feeds and counsels with the AFMA feed control relations committee on subjects of definitions and standards and on matters where nutrition is affected by labeling or other regulations.

The third group, a feed control relations committee of the AFMA Dog Food Division, will be in operation soon, Mr. Glennon noted. Its function, he said, will be to counsel on all feed control legislation and regulations dealing with pet foods and it will work closely with the other two AFMA committees.

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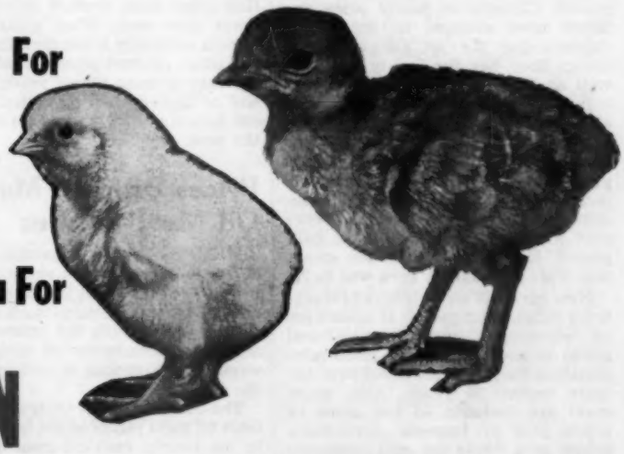

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UP OR DOWN?

By Leonard W. Schruben
Agricultural Economist, Kansas State College

OLD VS. NEW PARITY FOR WHEAT AND CORN

Much interest has been shown in trade circles in the fact that parity prices for wheat and corn are now being shifted at the rate of 5% per year from old parity to new parity. A comparison of how these two formulas would have worked out over the years for wheat and corn is shown in Exhibits 1 and 2.

The general idea of parity is that a bushel of wheat or corn should buy as much now as during a given base period. Changes in parity price are based upon changes in the prices farmers pay for an assortment of things they buy for family living as well as farm production.

In the past, legal parity has been computed by using the average price farmers received during the base period times the index of prices paid plus interest and taxes. An index is merely a statistical device for measuring the relationship between current prices and prices in some past period. Base period price for wheat was 88.4¢ bu., and for corn was 64.2¢.

New parity is another way of measuring purchasing power. It allows for an adjustment among agricultural prices in accordance with price relationships that have prevailed over the most recent 10 years. Also, wage rates are included in the index of prices paid by farmers. Agriculture prices as a whole are still compared with prices paid by farmers by using the 1910-15 base period. The term "modernized" when applied to parity refers to this adjustment in the relation among farm product prices.

Exhibit 1 shows a comparison between old and new parity for wheat. "New" parity is shown as a percentage of "old" parity. It was assumed prices farmers actually received would have been the prices that prevailed had "new" parity been a basis for the farm program. Exhibit 2 shows the same thing for corn.

Some people have the false notion that new parity will automatically work towards lower prices for grains. This might be what actually happens, but over a period of time, the reverse could be true. Notice how new parity on corn gained on old parity during the mid-1930's. What happened was that other farm product prices went lower than corn. When grain prices remain relatively lower than livestock and other product prices, as has been the case in most recent years, parity will be higher when computed by the old formula than when computed by the new.

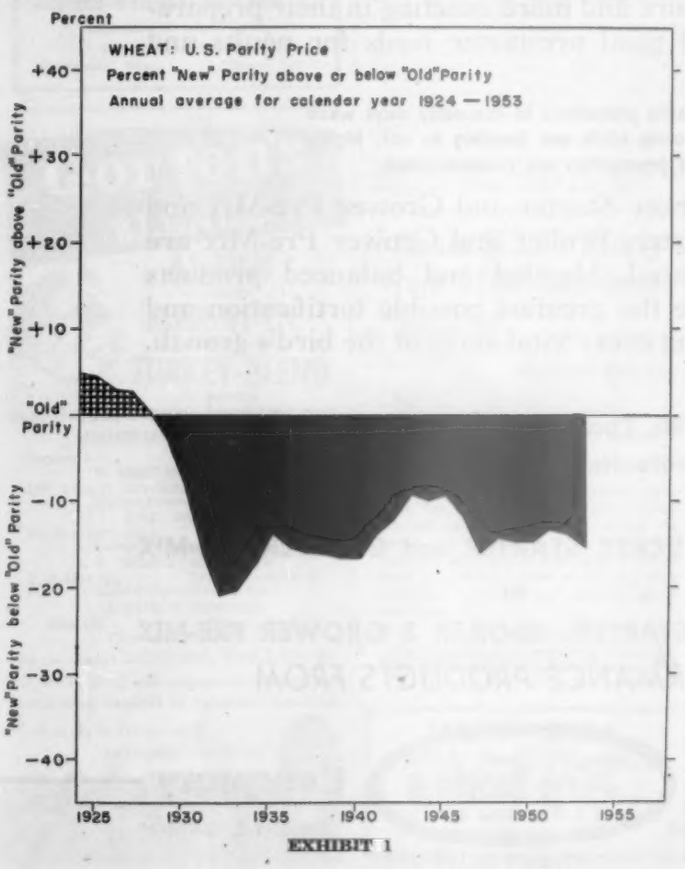

EXHIBIT 1

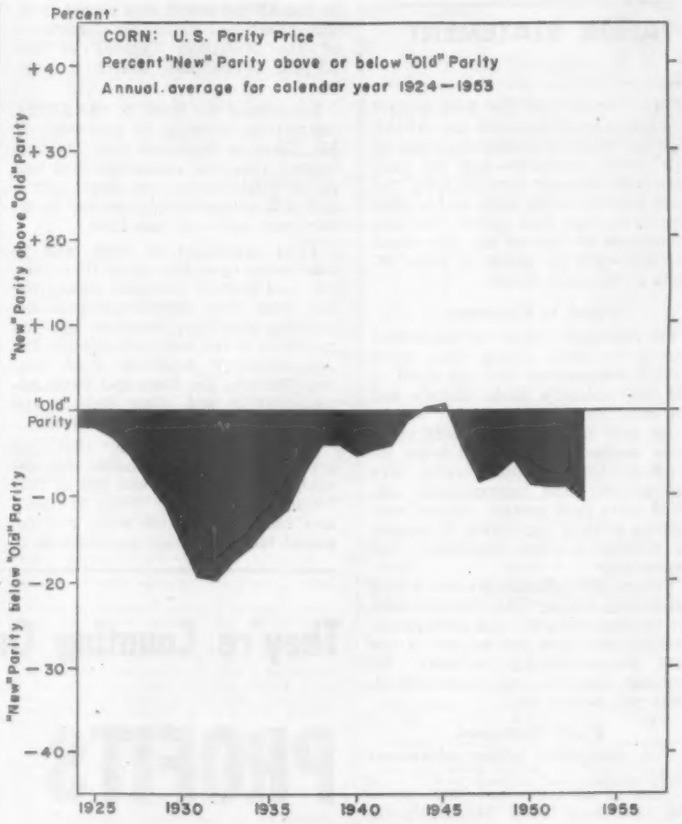

EXHIBIT 2

Prices Drop on Most Oil Meal Futures

MEMPHIS — The Memphis Board of Trade experienced a sharp decline in protein oil meal futures prices during the past week, with all months closing lower, with the exception of new crop cottonseed oil meal. The week saw a pickup in volume over the previous week.

The current March contract in soybean oil meal reflected the heavy tone in the nearby cash oil meal market, and the increased liquidation in that option resulted in a decline in the open interest. In the cash oil meal market the nearby shipment was said to be congested despite broad consumption as a result of the heavy rate of production.

There have been no notices issued in unrestricted soybean oil meal, but 700 tons of Eastern Trunk Line soybean oil meal were tendered during the week. While uneasy longs were said to be liquidating, hedge lifting by cash interests provided the major support for nearby March.

Closing unrestricted soybean oil meal prices for the week were 65¢ ton to $1.65 ton lower. Sales of 29,200 tons compared with sales of 26,100 tons a week earlier.

Eastern Trunk Line closings ranged from $1@2.15 ton lower. There were 4,700 tons sold, compared with 2,600 tons a week earlier.

Dealers said the mixed feed business was reported fairly steady, but added they see no significant improvement in the over-all picture.

The only plus marks of the week were recorded by distant cottonseed oil meal months. Final prices were $2 ton lower to 50¢ ton higher.

Cottonseed oil meal volume for the week was 9,900 tons, compared with 2,100 tons the week before. There were 400 tons tendered against the March contract.

W. J. Wragge of Wagner Mills Dies

SCHUYLER, NEB. — Walter J. Wragge, 51, vice president of Wagner Mills, Inc., here died recently in an Omaha hospital.

After attending the University of Nebraska for four years, he was employed by the United States National Bank in Omaha in 1925. In 1927 he became associated with Wagner Mills.

Mr. Wragge was very active in civic affairs in Schuyler, and had held a number of important governmental and civic positions.

He is survived by his widow and four children.

MARKETS

(Continued from page 2)

they are getting on the cattle but quite unhappy about the market price for fed stock. A great amount of silage and hay is being fed along with some supplement. The trend is to utilize the lowest cost feeds possible because of price situation.

Poultry feed sales are lighter now than at this time last year. Hatches are down 5 to 7% below the same time a year ago. However, placements are expected to pick up, and there will probably be more poultry raised this year than last. Drouth conditions on farms and ranches could account for more chickens and eggs being produced as farmers attempt to supplement their income with poultry and egg sales. Many small farmers and wheat farmers who formerly kept a few cattle have sold them because of the drouth. Poultry may replace this source of income for "grocery" money.

Southeast

Feed demand in the Southeast remains dull and unchanged from recent weeks. Mill running time is holding about steady, but so far, the predicted spring pickup has not developed. The weather over most of the area has been open and mild, and pastures are improving daily in some sections.

Chick placements in the north Georgia broiler sections continue at a high rate, but have dropped to about 25% more than the corresponding week last year. This is down from the previous week but is still relatively high.

Sagging hog prices have done little to help hog feed sales, and improved pastures have slowed dairy feed demand.

Supplies of ground snap corn are beginning to build up at producing points, and in some cases, recent price advances for this material have been revised and lower prices are being asked. Purchasing agents for feed mills are buying hand-to-mouth supplies only, and even this type of buying is held to a minimum because of lack of demand and sagging ingredient prices.

Cottonseed meal prices have been depressed in the Southeast by lower Mississippi Valley offerings, which, in many cases, have been making the market. This has caused supplies to build up at various producing points in area, resulting in declining prices. Demand for roughage feeds has been poor, and materials such as cottonseed hulls have been a drug on the market.

With so many cotton oil mills finishing up for the season, it had been expected that prices for cottonseed products would follow the normal sea-

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sonal pattern and would advance at this time rather than decline. In some instances, feed manufacturers have actually offered ingredients for resale rather than add to their present inventory. This further reflects the slow demand and depresses the general price structure even more.

Northeast

Sales of formula feed held about steady this week. Egg mashes and broiler feeds continued to lead the way, with chick starter feeds in seasonal volume.

Dairy feeds are not doing too badly, but there has been nothing sensational about sales all this season. One spokesman said there may have been too much grain on the farms last fall. Some farmers in communities with different types of grain have exchanged supplies with each other, and this has affected the market.

Eggs were steady to firm, with prices up 1@2¢ in some sections of this region. Broilers were steady-to-strong, with prices also up 1@2¢ in some areas. Growers are putting in a lot of birds, and there could be easier markets in about 10 weeks. Because of comparatively low feed prices, growers are able to make a profit on the birds at today's levels.

Feed ingredients were irregular. Alfalfa meal was unchanged. Gluten feed, gluten meal and distillers grains were also unchanged. There were some distress cars of brewers grains offered $1 below the market. Hominy feed was strong. Soybean oil meal was weak and off $2. Millfeeds were about steady.

Running time of formula feed manufacturers averaged about 42 hours last week, with one mill on a somewhat higher basis.

Central States

Feed manufacturers reported business was slow in some cases, while others maintained sales had picked up somewhat. The majority of manufacturers said business was definitely down from the previous week in the central states during the week ending March 7.

Mills said farmers were still unhappy over returns from livestock and poultry and apparently trying to save money by using less feed. They were also generally agreed that a spring pickup probably would occur within the next few weeks. So far, chick business has not come about as soon as expected.

Generally, all types of feeds were moving slowly. In the cases where mills reported a better week, it was thought dealer inventories were down very low and had to be replenished.

Most mills were working five days, and order backlogs were anywhere from one to three days.

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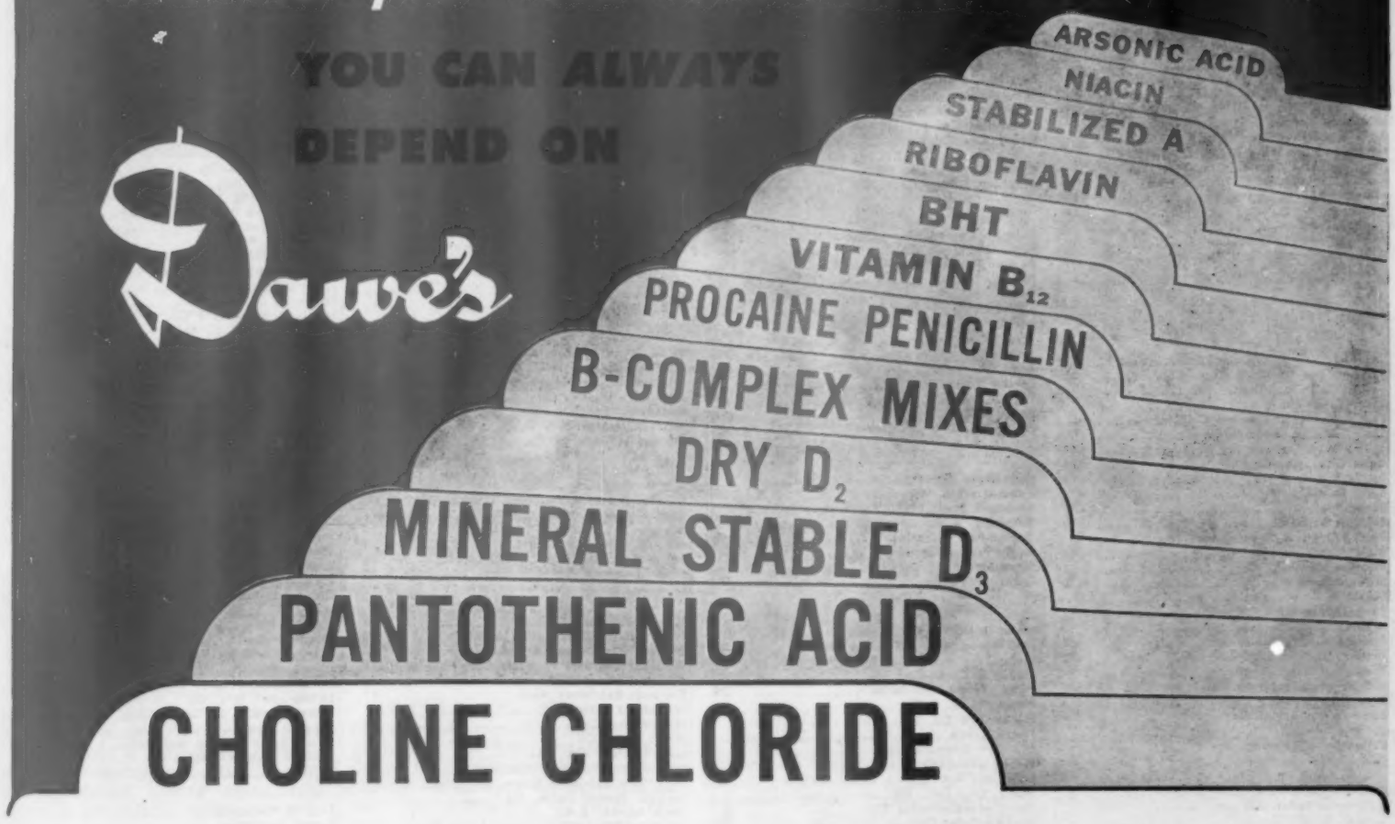

Fortify with Dawe's Choline Chloride. Make sure choline is not a limiting factor in the performance of your poultry and swine feeds. It is essential to vital body functions, to efficient feed conversion and overall health and productivity throughout the life cycle.

The trend is to increased choline fortification of modern-day feeds. Choline levels formerly adequate may not be sufficient for today's high-energy feeds. More Dawe's Choline Chloride is being used by the feed industry than ever before.

Dawe's Choline Chloride 25%: A dry feed supplement containing 25% choline chloride on powdered cereal carrier. Particle size is ideal for thorough dispersion. It is completely free-flowing, non-sticky and handles well in either batch or continuous mixing operations.

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